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CANCER OF LIP, RESULTING DEFORMITY, PLASTIC REPAIR*

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The presence of a sore in any of the orifices is a source of danger. Carcinoma is now conceded to be the sequence of repeated mild irritation. This etiology differs materially from that of sarcoma. Sarcoma is the sequence of a moderately severe trauma; never of a severe trauma. More plainly stated, you never get a sarcoma at the site of a fracture. You may have a sarcoma and subsequently a fracture, but you never get a sarcoma where the bone is broken. Where you hit the bone with a baseball; with a bat or strike it against the edge of a chair, stopping short of fracture; that is the type of trauma that produces sarcoma.

In the study of sores on a lip it becomes necessary to eliminate tuberculosis or other infection. Consider tuberculosis and analyze the difference in the clinical course. Tuberculosis is at first a local manifestation, as in carcinoma; it destroys by the multiplication of cells, as in carcinoma; there is a local center of necrosis, just as in carcinoma. Second, it is transmitted to the neighboring lymphatics. Third, it may be transmitted to the blood stream and to other positions in the body. Fourth, it destroys life.

These similarities, however, between malignant disease and infections are *not* continued in the pattern of the cellular metastasis. In malignant disease metastasized cells *always* reproduce the pattern of those present at the primary focus. For example, if you have a squamous cell epithelioma of the lip and a metastatic cancer appears in the femur, it would be a squamous cell epithelial cancer. In infection, on the other hand, it is the cells of the tissue in which the infection lodges that become active. If you have a tuberculosis of the lip and get a metastatic tuberculosis of the femur, there would not be epithelial cells, but osseous cells, at the point of infection. The cell itself is the destructive element in both sarcoma and carcinoma; the microorganisms are the destroyers in all other varieties of infection. The biotic and toxic effects of the microorganisms cause the changes that occur with infection. The multiplication of the cells produces the changes that occur with malignant disease.

In cancer, the question that first arises is, how soon after the first erratic epithelial cell penetrates its basement membrane, which is the one condition that makes it a cancer—how soon after that do these cells pass into the neighboring lymph spaces, and how soon are they passed on into the first lymph filter, the first lymph node? This question has never been answered. It is for the above reason that we are not justified in saying that if we could have the cases earlier we could get results.

In the report of St. Bartholomew's Hospital in London, which contains an analysis of the cases for twenty-five years, it is noted that the cases operated upon before demonstrable enlargement of the superficial lymph nodes, showed a *final* cancer mortality of 52 per cent. Of the cases operated upon in which the nodes were palpable, and in which the nodes had been removed, 75 per cent died a cancer death.,

A carcinoma is or is not dangerous, from a metastatic standpoint, in proportion to the lymph supply of the zone primarily involved. Carcinoma occurs more frequently in a rich lymph supply zone than in a lesser lymph supply zone. The lip, as we know, is one of the richly supplied lymph zones. Metastasis should, and does, take place earlier here than it does in any other portion of the body.

In analyzing carcinoma of the lip we find that there are distinct types of recurrence: One occurs in the lip itself, in the lymphatics, far from the point of primary invasion. Another occurs, first, in the lymphatics of the upper triangle of the neck; second, in the deeper structures of the neck, and third, one commonly overlooked, in the small lymphatics situated just below the foramen mentum.

Dr. John B. Murphy, in his valuable "Clinics," reports the case of a man operated at Mercy Hospital for epithelioma of the lip. This man returned nine years afterwards with an enlarged

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lymph node situated under the anterior portion of the submaxillary salivary gland. The question arose—how long had that infection been present in that gland? It had not returned "in loco"; but nine years after the original operation he removed a squamous cell epithelial growth from this lymph node, which, as Doctor Murphy says, means what? It means that it had been there nine years, because there is no such thing as a *primary* squamous cell carcinoma occurring in a *gland*. This leads us again to the problem. How early does transmission take place? An answer to this question would give us a more rational or definite basis on which to render an opinion as to when we remove cancers, early or late.

A. C. Broders, M.D., of the Mayo Clinic, in a review of 537 cases says it is an error to classify cancer of the lip as cancer without any distinction as to the degree of malignancy.

It is a well established fact that some cancers of the lip are fatal to patients and others are not. Different theories have been advanced in explanation of this. It is claimed that some persons are resistant to cancer. Again, there is no doubt that a large proportion of cancer cells are destroyed by the defense cells of the body. Of these the fibrous connective tissue cell is the most important since it cuts off nourishment from the cancer cells.

The endothelial leukocyte and lymphocyte evidently also play an important role in the destruction of cancer cells, for practically always they may be seen in the neighborhood of a cancerous growth. Foreign body giant cells that are most probably formed from the endothelial leukocytes are not infrequently found lying adjacent to cancer cells.

Doctor Broders is of the opinion that the most important factor in squamous cell epithelioma of the lip seems to be the degree of its cellular activity.

His explanation is as follows:

"The cells of some epitheliomas of the lip show a marked tendency to differentiate; that is, to produce a growth similar to the normal; the pearly body is an example. The pearly body corresponds to the horny layer of the epidermis. In other squamous cell epitheliomas there is no differentiation at all. In the large majority of these growths whose cells do not show a tendency to differentiate, or at least very little, there are many mitotic figures. Upon the above theory he graded these lip epitheliomas according to differentiation and mitosis, laying special stress on the former. Some epitheliomas of the lip are very active and from the start show little or no tendency to differentiate.

"With that as a basis four groups were graded. In a tumor of Grade 1 malignancy, about three-fourths of its structure contains differentiated cells, and one-fourth undifferentiated cells. In a tumor of Grade 4 malignancy, all the cells are undifferentiated. Between these two extremes are tumors of Grade 2 and Grade 3 malignancy.

"From a review of the known cases of death from epithelioma of the lip, it was found that the mortality from this cause was 100 per cent in cases in which malignancy was graded 4; 84 per cent in cases graded 3; 55 per cent in cases graded 2, while there were no deaths in the group graded 1. Some epitheliomas grow more malignant with time; others increase in malignancy and then retrogress. Unquestionably an epithelioma of a low grade is made more malignant by irritating with chemicals such as hydrochloric acid, nitric acid, silver nitrate or arsenic paste."

This classification of Doctor Broders has been emphasized by Percival Cole of England. Again Meleney in Pekin, Aurelieno Urrutia in Mexico, Brewer of New York and Martzloff of John Hopkins have independently proven the correctness of Broders' classification and have all agreed to its great value in prognosis, as well as its aid to the decision of the surgeon regarding the value of surgery in a particular case.

MacCarty has demonstrated early cancer in the pithelium at or near the edge of gastric ulcers; practically the same process is found in early cancer on ulcer of the lip. In the lip the cancer starts in the stratum germinativum of the epidermis at our near the border of the ulcer. Not all cancers of the lip are preceded by ulcer but the majority are.

After reviewing the 537 cases from various standpoints, Doctor Broders deduced thirty-seven different conclusions. All of these deductions are interesting but too voluminous to quote in this paper. I will, however, mention a few of the more interesting:

(1) It occurs more often in males, the proportion being 69 to 1.

(2) The greatest incidence of the disease is at the average age of 57.3.

(3) It occurs more often in farmers, 56.7 of his series.

(4) A family history of cancer plays a negligible part.

(5) The site of cancer was preceded by a sore or ulcer in 63.3 per cent of the cases.

(6) One-fifth of the cases did not use tobacco.

(7) Of the tobacco users 93.3 per cent smoked and 78.4 per cent of these used a pipe.

(8) Trauma plays a negligible part.

(9) The duration of the lesion shows a marked variation, from 0.08 years to 28 years, with an average of 2.58 years.

(10) The lesion originated on the lower lip in 95.6 per cent of the cases, on the upper in 3.5 per cent.

(11) Of the patients operated on and traced 40.5 per cent are dead.

(12) Of the living 92.8 per cent report a good result.

(13) Of those that died 63.6 per cent died from epithelioma.

(14) Those previously treated with pastes, radium, etc., did not obtain such good total results as those not so treated.

There is a type of case that, at the time it falls into your hands, has had numerous treatments, which afford temporary check of the progress of the disease, but finally results in much loss of tissue and consequent deformity. It is to this particular type I invite your attention. I also desire to call your attention to a special plastic operation designed for relief of this deformity.

The operation referred to was obtained from an article in *Surgery, Gynecology and Obstetrics,* Vol. XXXVI, No. 1, January, 1923, written by Clarence A. McWilliams and Henry S. Cumming of New York City. The flap obtained for the plastic repair of severe deformities of the face, including those of the nose, cheeks, chin and lips, is not original with these men. Dufourmental in 1918 and Sebileau in 1920, have taken hairy, temporal forehead flaps to make up losses on the face. By taking the temporal frontal flap from each side, the two halves being left attached to each other in the median line, the whole upper or the whole lower lip can be reconstructed. In each pedicle should be incorporated the superficial temporal artery, thus affording a very rich blood supply. By Thiersch grafting the undersurface of the portion of the flap, that is, to cover in the defect and be toward the mouth, its surface becomes covered with epidermis, which, being continually bathed with saliva, rapidly takes on the character of mucous membrane and does not contract. To prevent subsequent contraction of the transplanted flap, two procedures are needed: first, the pericranium should be left attached to the intended actual transplant, and, secondly, the undersurface of the pericranium should be Thiersch grafted before it is transplanted. Having formed your flap, skin-grafted the part including pericranium, pedicled the temporal portion, it is placed in position with perforated silkloid. It is not ready for transplanting for at least two weeks.

The dividing of the pedicle can be done in another two weeks. If it is a double-pedicled flap you divide one pedicle at a time with at least ten days between.

After dividing the pedicle or pedicles you then begin the minor operations looking towards the fashioning of a natural lip.

My limited experience with this flap leads me to feel that it has many advantages over a neck or chest flap, especially for the use referred to in this paper.

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CASE REPORTS OF PLASTIC REPAIR OF MUTILATING OPERATIONS OF LIP AND CHEEK FOLLOWING RADICAL REMOVAL OF CARCINOMA

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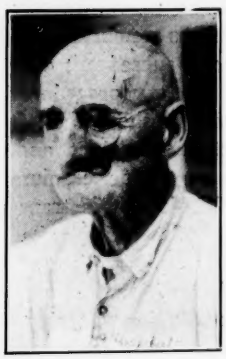
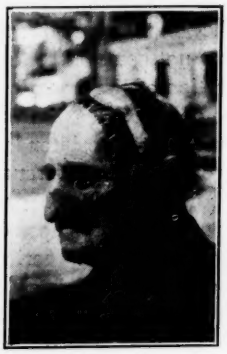
The first patient I wish to present is Mr. J. C. Coleman who was admitted to the Duval County Hospital March 19, 1924, and assigned to my service, that of plastic surgery.

In this presentation the only important points of his history are as follows: Age, 76. No family history of malignancy. Carcinoma developed on the upper lip near the left angle of the mouth four years ago. Was treated with cancer pastes by a so-called specialist in New York with disappearance of the lesion for six months when it returned at the original location. Came to Florida and was treated with radium by a physician of Jacksonville with healing for another six months. On reappearance the same physician

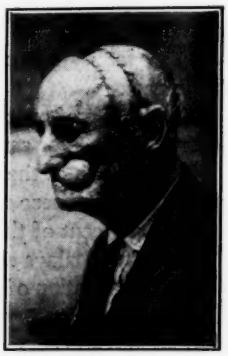


Case 1. J. C. Fig. I. Lesion healed after cautery removal.



Case 1. J. C. Fig. II. Flap prepared.

Case 1. J. C. Fig. III. Flap sutured into defect.



Case 1. J. C. Fig. IV. Pedicle severed and returned to original site.

applied radium both outside and inside the mouth. Four months later the lesion was again active when radium needles were used in the tumor and X-ray treatment given. A few months later it was again necessary to use the same type of treatment. Three weeks later the face was considerably swollen and the lesion was necrotic. The cheek near the left angle of the mouth was perforated and the opening would admit the tip of the little finger. The patient then applied at the county hospital for treatment.

March 22, 1924, under ether anesthesia, the left half of the upper lip, a portion of the cheek, and the left third of the lower lip were removed with the electric cautery. The roughly circular portion of tissue excised was two inches in diameter.

Six months later healing was complete and the patient appeared as in Fig. 1, hideously deformed, unable to hold the saliva in the mouth, able to eat with difficulty, and unable to smoke.

September 19, 1924, again under ether anesthesia, two parallel incisions one and one-half inches apart were made from the left zygomatic arch vertically to the top of the head where they were separated to surround a portion of the scalp slightly larger than the defect as at first produced. The enlarged end of the flap included the pericranium. The pedicle consisting of skin only was tubularized with several sutures. Two large Thiersch grafts from the thigh served to cover the raw surface of the enlarged end of the flap. Celluloid tissue was placed between the flap and the head to prevent reunion of the raw surfaces. This operation is demonstrated in Fig. 2.

Thirteen days later, again under ether anesthesia, the flap was turned down and sutured into the defect after thorough removal of the scar tissue, as seen in Fig. 3. The Thiersch grafts had taken and the buccal surface of the flap was completely epithelialized. No dressing was applied.

October 17, 1924, as demonstrated in Fig. 4, the pedicle of the flap was severed, incised along the line of union, unrolled and returned to its original site, the remaining raw edge of the transplant sutured in place, and the ray area on top of the head covered with Thiersch grafts. No dressing was used except for the latter.

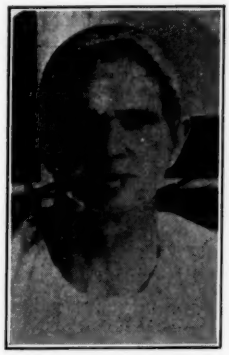
November 6, 1924, after careful measurement the mouth was formed and false mucous membrane sutured to the skin edge. No dressing was used. Fig. 5 shows the result two weeks after the final operation. The edema present in the transplant will disappear in time. The patient can now eat, drink and smoke comfortably. During the course of the several operations it was necessary to call Dr. Shaler Richardson into consultation to treat an ectropion of the left lower eyelid caused by the contraction of the tissues on that side of the face. The ectropion subsided following Ziegler cautery puncture.

The next patient I am showing through the courtesy of my friend, Dr. John E. Boyd, who gave me valuable advice and assistance in the operations on the patient just shown. The case demonstrates the same type of operation except that a double pedicle flap was used.

The patient, R. L. Talley, was operated upon by Dr. Boyd at St. Vincent's Hospital. He is 64 years old and his history is unimportant except as it relates to the disease for which he was

Case 1. J. C. Fig. V. Result two weeks after final operation.

Case 2. R. T. Fig. VI. Before cautery removal.



Case 2. R. T. Fig. VII. Double flap prepared.

Case 2. R. T. Fig. VIII. Flap transplanted.

operated upon. In 1908 a small scaly sore appeared on the lower lip near the right angle of the mouth. For twelve years there was no treatment and no change in the lesion. In 1919 a definite ulcer formed and began to enlarge. Another so-called cancer specialist applied a paste. The lesion healed for eight months, when it reappeared at the original site. The "specialist" then sent a paste which the patient applied. Healing did not take place this time. He was treated with radium in 1921, and the lesion healed for a few weeks and recurred. The same treatment was used several times with the same results. In May, 1922, a neck pedicle-flap was formed to repair the defect then present, but before it could be transplanted the lesion was again active. The following month another cancer plaster was applied without benefit.

A physician in Jacksonville was then consulted who treated the diseased area with radium on two occasions. The patient was then referred to Dr. Boyd for repair of the large defect present. Fig. 6 illustrates the condition. A small ulcer was still present.

In December, 1922, a wide cautery excision was done. Two months later it was again necessary to use the cautery to remove a portion of the cheek where recurrence had taken place.

When healing had finally resulted a double pedicle-flap was prepared as shown in Fig. 7, on May 1, 1923.

Ten days later the stirrup flap was turned down and sutured into the defect as demonstrated in Fig. 8.

On the 29th of the same month one pedicle was severed and returned to its bed, and on the 12th of June the other pedicle was similarly treated. These steps can be seen in Figs. 9 and 10. Subsequent to this there were several minor cosmetic operations, and the condition of the patient was as shown in Fig. 11.

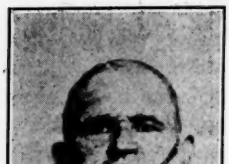
The pathological report on both of these cases was basal cell carcinoma.

The advantages of this type of operation are: (1) Thickness of scalp tissue. (2) Assured blood supply (the superficial temporal vessels). (3) Comfort of the patient. (4) Additional deformity on top of the head where it is less noticeable than on the face or neck. The defect of this method of repair is that of all plastic operations, viz, immobile tissue replacing mobile structures. In replacing one lip the normally mobile one can effect a perfect closure of the mouth. With repair of both lips this is, of course, impossible.

Discussion of the Papers of Drs. Boyd and Copp.

Dr. Gerry R. Holden, Jacksonville:

In discussing this paper, I wish to first consider the treatment of choice in superficial cancer. I think we may lay down as an axiom that the best treatment of any superficial cancer is surgical excision, provided that our incision can go beyond all the tissue that is infected with cancer and provided that the resultant deformity is not unduly great. In cancers of the face, however, it is seldom that we can satisfy these conditions. In such face operations it is difficult to get around all of the cancer, and it is almost impossible to make your incision so that you will not have great resulting deformity. Therefore, cancers of the face are the favorite field for radiotherapeutic treatment as well as treatment by cauterization, paste and other means.



Case 2. R. T. Fig IX.
One pedicle severed and returned.

Case 2. R. T. Fig. X.
Second pedicle returned to original site.

Case 2. R. T. Fig. XI.
Final result.

When should we use radiotherapeutic treatment in facial cancers, and when should we resort to the more drastic measures as outlined in these two papers of Drs. Boyd and Copp? Those of us who are using radiotherapy know that there are certain types of these cancers which can be treated by radiotherapeutic measures as well as by operative measures. These cases are as follows: In basal-celled epitheliomas and possibly squamous-celled epitheliomas of low grade, providing that the lesion is no larger than a quarter in diameter, and providing that it has had no previous treatment, we are justified in using radiotherapeutic measures, either X-ray or radium. However, we have a very great many cases in which these conditions are not satisfied, and these two cases reported by Dr. Copp fall in that class. They were both men who had had previous treatment of various sorts, caustic, electrical, and radiation, both X-ray and radium, and we had the tissues of these men in a condition in which they resisted any further radiation.

I was associated with Dr. Boyd in the treatment of the second case, and I learned a great deal by it. I radiated him first with radium needles as preparatory for Dr. Boyd's operation, and the reaction of that skin was absolutely different from that of a man who has had no previous radiation. Instead of a normal reaction, we got a melting away or disintegration of the tissues, leaving a poor surgical field for later surgical work.

I think that the proper treatment of the cases such as Drs. Boyd and Copp have described, is as follows: When these cases come to you after a long series of previous treatment, whether it be caustic cautery or radium, I believe that the only way to handle them is the wide type of surgical operation with disregard of facial deformity, endeavoring to get as far outside of the lesion as you can, and then repair your resulting defect with the measures which have been laid down in these two papers.

In conclusion I want to congratulate both Dr. Boyd and Dr. Copp on these cases, not only on the manual dexterity employed, but on the infinite patience which is required to handle them. Having them around in the hospital for month after month, and still being able to smile pleasantly and treat them patiently until the end of the necessary time requires an amount of patience that the majority of us do not possess.

Dr. John S. Helms, Tampa:

I have no grounds on which I could very well differ from Dr. Boyd. I certainly think he has presented a most important subject in a very scientific and practical way, and I enjoyed hearing it.

Of course, in dealing with these lesions the first thing that we must know or must do is to make the proper diagnosis. The things that malignancies of the lips must be differentiated from were mentioned pretty completely by Dr. Boyd. There is one class of cases, however, that I think he failed to mention, and this did not occur to me until the last year. The experience of two cases, however, led me to believe that one should be careful in differentiating malignancy of the lip from fusiform bacillus infections or Vincent's angina. I ran across a case which was diagnosed as malignancy of the lip without however having any study of the tissue. He was treated with radium and by other methods, and finally the diagnosis was determined to be fusiform bacillus infection. This case presented a

most dreadful spectacle in its last aspect. The entire lower lip and jaw bone had disappeared except a very thin layer of the jaw with a part of the tongue and it was definitely diagnosed as fusiform bacillus infection and was not a malignancy. It resisted every form of treatment.

I had another case which showed a complete erosion of the nasopharynx and might have been taken for malignancy. There were no lesions, however, on the lip, and that case does not directly relate to the subject, but I mention it for the reason that it might be taken for malignancy. This case presented a most awful spectacle, and finally died in spite of all treatment given.

The work of Broders in determining the degree of malignancy in these cases, in my judgment, marks an epoch in the study of malignancy of the lip. The relative merits of the different forms of treatment of cancer of the lip finally rest on the degree of malignancy rather than the effectiveness of the individual treatment. So the determining of the degree of malignancy is a very important factor in these cases, for it determines not only the plan of treatment as a rule, but it also determines the final results with the prognosis in the case.

I desire to congratulate Dr. Copp upon his splendid presentation of constructive plastic repair of the defect resulting from the treatment of these cases. Plastic constructive surgery is a special field itself. It requires special training and it requires ingenuity, and as Dr. Holden suggests, it requires a lot of patience. I am glad to know that Dr. Copp has developed this branch of surgery so highly.

Dr. J. S. McEwan, Orlando:

I could not let this opportunity pass without congratulating these two men on their work. I think, as Dr. Helms has said, one of the most difficult branches of surgery is plastic work. It takes a genius to do it, a mechanical genius, and he must have, as Dr. Holden has said, a lot of patience.

I would like to ask these men if they have had a recurrence of either one of these cases as yet?

Now, I should like to add one thing to the treatment of these superficial epitheliomas. I think one of the greatest aids today, together with radium and X-ray, is what Dr. Ward, of Baltimore, has described lately in various journals and that is electrothermy. Since seeing this method used in Baltimore last fall, I adopted it, and have been using it for the past six months. I think today that in treatment of superficial cancers, epitheliomas, and all cancers that we can get access to, this method of removing them is ideal. With this electrothermy knife or needle you can get under, take out the specimen, and get primary union without scar, loss of tissue, or burning as with the ordinary cautery. Just last month I was told of a case where the entire process was removed with this electric needle and there was no hemorrhage. If you use it with the proper strength you can close it up and get primary union.

The technique to prevent the spread of this infection is by introducing a ray of heat around the epithelioma or cancer and then cutting it out by applying the electric knife to the base. You then get a clean wound and you get no sloughing and no hemorrhage. I believe this is going to be a great aid in the treatment of superficial cancer.

Dr. Kirby-Smith, Jacksonville:

I have not much to say on the subject of surgery or surgical repair, after extensive cancer, but I would like to have a few words to call your attention to a simple and important measure which I consider valuable to medical men in bringing about the prevention or the cure of cancer of the lip without the patient going years with extensive ulcerations, viz: education of the public to seek medical relief early for any abnormality of the skin of the lip. Fifteen or twenty years ago it was the commonest affair in the practice of medical men to see patients coming in with extensive ulceration of the lip from long standing cancer of the lip. I think now that it is a rarity that you see cases of the type Drs. Boyd and Copp have shown us. Remember that cancers, either of the basal celled or the squamous celled type of epithelioma of the lip, begins as a rule in the horny layer with a small ulcerated patch of hyperkeratosis. Some of these are irritated by a pipe or some instrument in one's occupation. These are the conditions that can be cured.

The surgeon, if allowed, would give us the prettiest and cleanest results with less scar tissues and the early relief of the patient. But unfortunately general surgery in the past has instilled in the minds of the patients the fear and dread of the mutilation by surgical treatment as well as by the process of the disease, until it was almost impossible for the surgeon to see these cancers in their early stages. Some patients in

the past have survived from one month to one year, but were never cured.

Education of the public about the cancer situation is being emphasized by the American Society for the Control of Cancer, and especially by Dr. Bloodgood, of Baltimore, who has spent a great amount of time in going around the country preaching this doctrine for the benefit of humanity, explaining to the people that if they expect a cure they must report to the physician in time. A simple growth of the lip, basal-cell type in its beginning, extends laterally. If it is of the prickle-cell type it will extend down to the glandular processes and very rapidly undergo malignancy. The types we see here today, basal-cell, may go on for sometimes years and years. I think these in the worst stage if properly treated with combined surgery and with the use of radium and X-ray all evidence of cancer can be destroyed, but is the cancer itself permanently cured? As Dr. Boyd mentioned, there are patients, occasionally, who seem to have a predisposition for malignant forms of cancer, and these in the end succumb to the disease in spite of everything we can do. These cases are hopeless. What can we do to permanently cure a patient with epithelioma of the lip with the glands involved? Very little, I think. I don't care what the treatment is, after the affection becomes glandular it is hopeless. In speaking of that, before I close my remarks, I want to mention a case I saw last fall. A woman consulted me at this time with a small superficial ulcerative epithelioma of the nose, and with the lymphatics apparently uninvolved. I used the usual curettement followed by X-ray treatment with apparent good result. I saw this individual four months later and she was in perfect shape. Two months after that I saw this lady again and this time she had a large involvement of the sublingual glands. Who could have cured her?

It behooves us all to treat carefully all of these little superficial growths of the lip until they are thoroughly destroyed. Follow the curettement with X-ray or radium and I believe you will lessen the occurrence of these extensive mutilating cancers in the majority of cases.

Dr. Shaler Richardson, Jacksonville:

I had the pleasure of seeing in consultation the case presented by Dr. Copp as Case No. 1.

Following the removal of the neoplasm there was considerable edema of the tissues adjacent to the removal. As a result of this there was an ectropion of the lower lid. I did a Zeigler cautery puncture and after a time we got a perfect result. After a period of three or four months the condition recurred, and we did a second operation. At the time the patient left the hospital our result was satisfactory.

I think Dr. Copp and Dr. Boyd are to be congratulated on their excellent presentations. I might say that really the pictures, the lantern slides that Dr. Copp has shown you of case No. 1, do not do justice to the end result. When the patient left the hospital the lip was so perfectly reproduced that it was difficult to tell that the lip mucous membrane was not intact.

I was very muchly interested in watching this patient after the last operation had been performed, in his effort to smoke. For months he had been denied this pleasure and when he was given the cigar he immediately started to smoke, which speaks for itself so far as the functional end result is concerned.

Dr. J. E. Boyd, Jacksonville (concluding):

I am sorry that I haven't the time to answer all the questions, but I will hit on the high spots. I thank you for the frank and free discussion.

Dr. Holden spoke about the deformity resulting from operation as compared to that following the treatment by radium. I am going to take just a little bit of issue with him about that. It depends entirely upon the time that the case reaches the surgeon as to the resulting deformity. If you get them early enough, and they have not been previously treated you get no more deformity than results from radium treatment. However, Dr. Holden has had quite a large experience with the treatment of these epitheliomas both on the lip and on the face, and I have had the pleasure of hearing him read a paper on this subject. He certainly has shown some excellent results. That is one reason why I desired him to discuss this paper.

Now, I want to stress the use of the cautery. If the epithelioma has apparently gotten beyond your reach or you are going to have to do a mutilating operation, for God's sake use the cautery. When it comes to removing what looks to be a hopeless cancer you very frequently get a cure when you least expect it if you use the cautery instead of the knife. I absolutely take issue with Dr. Kirby-Smith regarding his statement, that when the adjacent glands are involved the case is hopeless. This is not borne out by my personal experience, and I don't believe that it reflects the experience of the best surgeons. I would hate to feel that every patient that comes

to me after involvement of the adjacent glands meant that I or no one else could do anything for that patient. It would be a terrible arraignment of the profession and especially the surgeon. We are doing better than that. We are not accomplishing all we would like to but we are doing better than Dr. Kirby-Smith would lead you to believe.

Dr. McEwan refers to the final result. The final result in my case was bad. I attributed this to too early plastic surgery following the radical removal. There was a recurrence about a year following the plastic. I was able to convey to to him the error I had made in my case. Another error made in my case was in the untubing of the pedicle. I unintentionally severed the temporal artery and lost about half of the pedicle. Dr. Copp, as shown by the pictures, has saved 100 per cent of the pedicle in his case because he was more careful. That last picture, as Dr. Richardson says, does not do justice to the end result. The final result in his case was one of the best I have seen. Certainly it was much better than the result obtained in my case. The pictures which were shown of my case does not demonstrate the actual amount of destruction. The entire lower lip clear down to the chin was gone, and this much (demonstrating) of the upper lip on the right side. However, I feel, under the circumstances, that if he had not suffered a recurrence he would have had a satisfactory result.

I think that cancer of the lip still plays a large part in face deformities. It seems that I cannot agree wih Dr. Kirby-Smith. The public is not educated to the menaces of lip sores, etc. I believe if you will just stop and think you will agree with the statement that there are yet a great many of these cases (we have had a large number in the old county hospital) where the lip, cheek and jaw were practically gone. These cases are a hell to themselves and everybody else around them. There are entirely too many seeking relief after all hope is gone.

FOCAL INFECTION AS RELATED TO SYSTEMIC DISEASE

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I am most grateful for this opportunity to present a paper dealing with a very interesting and important subject, which until within the last ten years has had very little scientific consideration. Not that focal infection as a cause of remote pathology is a new subject in medicine, but even to this day it is practically an untouched field of thought by the great majority of general practitioners. By this I mean that its great importance as a causative factor of systemic disease is little realized and that painstaking search is not instituted in many cases to accurately and scientifically find the source of infection in a given case.

In the short time at may disposal to present this paper the subject can be covered only in a general way. It shall be my purpose to stimulate thought in the minds of the general practitioners of medicine to such an extent that no method of scientific research will be left unused to determine the cause of a disease in a particular case and to give that case satisfactory treatment. The many cults and isms in vogue today are not without cause. The general public cannot be blamed for groping for causes of their ills. If careful study of a case is made, an accurate diagnosis arrived at and satisfactory treatment instituted, that patient will not be seeking relief at the hands of a charlatan. In order that these results may be obtained in many more cases than we find them today, the true source of infection must be found and eradicated. Observations made in the great medical clinics of this and other countries and accurate technique and scientific laboratory methods of studying hospital cases impels one to state that microorganisms found in areas of focal infection may produce pathology in almost any tissue of the body. For this reason the case must be accurately studied. In considering the areas of focal infection which are most generally conceded to produce systemic disease it is not often possible to set aside tonsils, teeth and sinuses and say that the one or the other is the one and only cause of the particular symptoms found, but a combination of these with the addition of genito-urinary conditions will account for at least seventy-five per cent or more of the cases of systemic disease. Many cases of illness originating in the tonsils or teeth are perpetuated by the intestinal tract and are then only amenable to treatment by the removal of the foci of infection and diet.

Systemic diseases of many kinds and in many parts of the human organism from infection in the tonsils, are of common occurrence.

There can be no doubt of this casual relationship of the tonsils to distant diseased conditions from the proof offered in very recent years by a

mass of clinical evidence. It is now almost universally admitted that many systemic infections arise through the entrance into the blood or lymph streams of organisms from the tonsillar crypts either with or without primary lesions in the tonsils themselves. The other method of producing disease is by the influence of the micro-organisms upon normal physiologic processes by virtue of the metabolic products elaborated in situ.

These infections have been roughly divided into two groups; first, those due to chronic conditions in the tonsils and to the absorption of organisms indigenous to the crypts; and second, those that are secondary to tonsillar lesions caused by organisms from an extraneous source, as, for example, the streptococcus infections resulting from a contaminated milk supply. Though the latter class of infections are often of a high degree of virulence and may result in fatal general sepsis or grave localized lesions, they are to be regarded rather as accidents than as due to any inherent conditions in the tonsils, beyond perhaps a general susceptibility to infection. They may be said to be of tonsillar origin only in that the infection is primary in the lymphoid nodules of the throat.

The second class of infections are due to the chronic pathological conditions in the crypts or in the tonsillar parenchyma. They alone can be directly attributed to the tonsils and for that reason they are the only infections that will be considered. It must be remembered that the other lymphoid nodules of the pharynx may be responsible for many of these infections, but that on account of the shallowness of their crypts or because of other reasons for freedom of drainage their importance in this respect is slight compared with the faucial tonsils. This is especially true of the lingual nodules.

Among the most common infections that have been attributed to this source are acute and chronic arthritis, both infectious and rheumatoid; myositis, anemia, thyroiditis, endoperi and myocarditis, acute rheumatic fever, chorea, acute and chronic nephritis, neuritis, osteomyelitis, appendicitis, peritonitis, pulmonary gangrene, infectious jaundice, cervical adenitis, of simple inflammatory or tubercular origin, and chronic toxemia without localized lesions other than those in the tonsils. Some years ago Billings and Rosenau in their study of focal infection placed the tonsil first as the most important agent of chronic infection and more recently, quoting from Dr. Ralph Pemberton, who, with his associates, made a study of a series of one hundred cases admitted consecutively to his service on the medical wards of the Presbyterian Hospital, Philadelphia, noted the following results: Tonsil or sinus infection, 60 per cent; dental infection, 58 per cent; divided as follows: pyorrhea, 77 per cent, and infection of the apices, 46 per cent, and genito-urinary infection in 34 per cent.

The diseases found most frequently in this series of 100 cases were cordiac disease, 16 per cent; nephritis, 12 per cent; arthritis, 10 per cent. This suggests the wide range of disturbances produced by focal infection. Continuing, Dr. Pemberton cites some very interesting figures relative to a study of four hundred cases of chronic arthritis observed in army hospitals during the late war, extending over a period of seven months. The first and outstanding observation was, that the removal of focal infections from upper respiratory, genito-urinary, dental and other tracts was not always followed by a cure. The second was that a great many (46 per cent) recovered in the presence of some demonstrable focus of infection. Nearly 60 per cent of the cases followed exposure, next in frequency was dysentery and other causes, and recent acute tonsillitis was far down the list, only 3 per cent. In 27 per cent no focus could be found. Tonsillar foci of infection was demonstrated in 52 per cent, dental in 33 per cent, and genitourinary in 12 per cent, and 20 per cent showed a combination of these. Somewhat at variance with the above is an arthritic series of 123 cases reported by Holsti in which a sore throat had recently preceded the attack in 71 per cent in acute cases, 47 per cent of relapsing cases of acute arthritis and 22 per cent in chronic cases as compared to 3 per cent as reported by Dr. Pemberton. His series, however, were all men in active army service, many of them unaccustomed to exposure but now subjected to it, which increases the statistics for exposure and lessens the tonsillitic cases in comparison. From many sources come warnings to remove tonsils and adenoids in cases with ear complaints. Many cases of acute and chronic iritis clear up rapidly after the removal of the tonsils, infected teeth or the draining of an antrum. Chronic tonsillitis and not the acute form is most likely to be the underlying cause of arthritis and extreme fatigue is often a symptom of tonsil infection.

Tonsillectomy may be of some benefit in exophthalmic goitre and in my experience is very beneficial in the simple forms.

In cervical adenitis the logical procedure is to remove the tonsils and not the glands.

Tubercular infection is not very common, about 5 per cent. Holsti reports the examination of 203 tonsils from 123 persons and the finding of ten with tubercular infection, five of which were taken to be primary, the other five being associated with pulmonary lesions.

Cases of kidney involvement accompanying and following tonsillitis are frequently encountered and range from a simple albuminurias and suppurative pyelitis to a recorded case of convulsions with a blood pressure of 215 mm., which subsided and had not recurred two years after tonsillectomy. The statement was made recently that the best prophylaxis against appendicitis is the removal of infected tonsils and thereby preventing gall bladder infections. Pyorrheal pockets and infected tonsils should not be left in the mouths and throats of pregnant women until after confinement. The benefits derived from the removal of these foci far outweigh the slight shock and inconvenience attendant upon their removal at any time during the pregnancy.

With special reference to sinus disease, allow me to say that our knowledge of the etiology, symtomatology, pathology, and surgical treatment of the sinuses has increased so greatly during the last ten years that this entire paper might well have been devoted to this subject alone. It is a well-known fact that a single sinus disease very rarely occurs, two or more being commonly affected at the same time, and very often all of them on one side of the head. The maxillary is perhaps more often affected singly than either of the others, it being infected from the teeth in about one-half of the cases. The second bicuspid and the first and second molars are in close relation to the floor of the sinus and frequently project into it. Those sinuses become very rapidly diseased because of the lack of proper ventilation and drainage. Therefore the treatment of these conditions which improves ventilation and drainage is of prime importance and the removal of infectious material is secondary. To accomplish these results very often taxes to the utmost the skill of the rhinologist and the dentist. Careful history of the case, plenty of time for examination and a good skiagraph are the means to a satisfactory diagnosis. The proper treatment of these infected areas will often give startling results in the clearing up of grave constitutional disturbances.

SUMMARY

Focal infections are undoubtedly the cause of a very large percentage of constitutional disorders.

These areas of infection should be removed from both the sick and the well, as a means of restoring the sick to health and as a prophylactic measure in the healthy.

More care should be exercised in locating the primary foci of infection.

An early and positive diagnosis of the patient's disease will restore to its rightful place the science of medicine in the minds of the public.

TRAUMATIC CORNEAL INJURIES—WITH CASE REPORTS*

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Normal vision being absolutely and unconditionally dependent upon a transparent cornea, our prime work in any corneal injury is to prevent any opaque condition which would interfere with the normal transparency of this tissue. Unlike an opaque lens which may be removed, the cornea must stay intact. The cornea being the window through which images of the outside world must enter the eye it is important to realize that this window may be hopelessly closed to the eye which it serves by the slightest injury. Injuries of the cornea should not be considered as trivial or insignificant. Although its purpose has been thwarted in many cases, it is the aim of Nature to equip every individual with two normal eyes in order that he may happily use them in obtaining binocular single vision.

The most frequent cause of traumatic injuries of the cornea is occasioned by small foreign bodies. The penetration of foreign bodies into the superficial layers of the cornea is a most common accident. Small particles of iron in the cornea, particularly among mechanics of a certain sort, like locksmiths, blacksmiths, iron founders, etc., is most frequently observed. The extensive use of the carborundum wheel renders it a perpetual enemy of the eye. The saw-filer's eyes are frequently the backstop for flying par-

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ticles of steel from the saw or file which the workman uses. In fact, it is most impossible to enumerate the varied and multiplicity of methods by which foreign bodies may produce traumatic corneal injuries. Innumerable objects under myriads of circumstances, from the innocent grain of sand or cinder from the furnace to the flying missile from a firearm may initiate disconsolate perturbation in both physician and patient.

Particles of iron which fly off from abrasive processes or when iron is being hammered, are heated by the abrasion or force of the blow so that they are thrown into the eye as sparks. These particles do not look like metallic iron for they have become oxidized into ferricoxide and are found in the cornea as such. If allowed to remain in the cornea, these fragments soon become surrounded by a brown ring, having impregnated the cells of the cornea in the immediate vicinity with ferrichydrate. If this paper does nothing more than impress the essentiality of recognizing and removing this brown ring of ferrichydrate it will have consummated no little consequential aim. You have all no doubt removed foreign bodies from the cornea, when after lifting it out you were amazed to find that there still remained, apparently, other material around where the removed object was seated. Upon the proper illumination and magnification it will be found if all the foreign body has been removed that deep in the center of the remaining mass, a white transparent spot appears. Having found this you may know that you are not dealing with foreign material, but instead the brown ring of ferrichydrate.

This ring of ferrichydrate is usually confined to Bowman's membrane which lies just under the anterior layer of epithelium and accounted for by virtue of the fact that most foreign bodies don't penetrate deeper than Bowman's membrane and that the epithelial membrane and the deep stroma seem to be more resistant to the impregnation of the iron than does Bowman's membrane.

In the event the ring of ferrichydrate is left in the cornea healing is delayed and frequently an inflammatory infiltration forms about it producing unpleasant results. If the area of discoloration occupied by the brown ring is small and the wound remains free from infection and inflammatory infiltration, regeneration of the epithelial cells may occur covering over the area of discoloration incorporating it entirely thereby producing a permanent opacity of the cornea in that area.

Corneal wounds are particularly hazardous under two circumstances, *e. g.*, when the wound is infected or when it perforates the cornea. A less frequent morbid condition, but nevertheless important, is where an opacity remains over the area of the pupil forcing the eye to deviate in or out as the case may be so that the light might fall on or as near the macula as possible. When this occurs we have a permanent stabismus resulting.

The treatment of corneal injuries is usually quite satisfactory, however, there are those cases which will tax the patience of the most resigned and indulgent of men. If the cornea has been injured by a foreign body lodging in it, it goes without saying that this object must be removed. This is usually done with the blunt spud or sharper knife, under oblique or direct illumination. For the light I personally prefer the binocular loupe which consists of a head attachment supplying illumination and magnification, leaving both hands of the operator free from having to hold lenses, etc. In removing any foreign body care should be taken not to produce additional injuries to the cornea. The anterior epithelium is easily detached and the incautious manipulation of an instrument over the cornea may denude it of a large amount of its epithelial covering.

It is important to determine, in corneal injuries, whether or not the wound is a perforating one. Every perforating wound of a cornea is to be regarded as intrinsically serious, because, given a perforation, there is the possibility of a coincident infection of the interior of the eye. Perforating or not, every corneal injury should be kept clean and free from infection and inflammatory infiltration. In view of the fact that iritis may follow corneal injuries, especially perforating wounds, the use of atrophine should not be overlooked. In perforating wounds it is best to bandage the eye after having applied a sufficient amount of 1 per cent ointment, yellow oxide of mercury, keeping the organ perfectly at rest until a solid closure of the wound is obtained. Should there be a prolapse of the iris it must be excised and see that no part of the iris remains incarcerated in the wound.

I would advise against the use of argyral, not only in corneal injuries, but in any condition of the eye where medication is needed. Contrary to

claims, argyral does not go into solution enough to prevent it from being an irritant in the eye. Undissolved particles of argyral would influence the eye in about the same manner as an equal amount of sand.

The following case report does not relate entirely to a corneal injury, but as the cornea was involved, it is given at this juncture:

E. M.; male; age 29.

History: On March 6th, 1923, while working at a logging camp patient was hit about the face with a limb which had been thrown from a tree as the result of an impact from a moving log. Without producing other external injuries, the limb broke the patient's rimless glasses which he was wearing and in some way a piece of the broken glass produced an incised wound of the eye 9-16 of an inch in length, just at the lower margin of the corneo-scleral junction. The center of the wound opened through the cornea into the anterior chamber and each extremity of the wound penetrated through the sclera and other coverings into the fundus of the eye. The location and extent of the wound allowed a prolapse of the iris and ciliary body and the escape of the fluid in the anterior and posterior chambers and some amount of the vitreous humor. Hemorrhage prevented an examination of the fundus. No foreign material was found in the wound.

Treatment: Patient was sent to me for an enucleation, and the first impulse, after examination, was to remove the eye. Upon reconsidering the conclusion was reached that we had all to gain and nothing to lose by trying to save the eye. It was impossible to replace all of the prolapsed iris (the upper edge of the pupilary margin of iris was outside the edges of the wound). The part of the iris which could not be replaced was excised. Sutures were passed from the corneal margin over the ciliary body through the adjacent sclera, atropine was instilled in the eye and after applying a thick layer of yellow oxide of mercury ointment (1%), dressing and bandage were applied and allowed to remain on for six days.

Result: On the sixth day when the dressing was removed it was found that the wound had united but not firmly, the anterior and posterior chambers had refilled, bringing the intra-ocular tension up to within 5mmHg. of normal, the part of the iris not excised occupied its normal position and the refactive media being quite clear. The eye remained free from infection. The suture material was removed and eye kept bandaged for several days. About three weeks after injury the wound had healed over nicely and vision without the aid of a lens was 20-40. The eye was refracted and vision made 20-20 with a minus 0.50 sphere combined with a plus 0.75 cylinder axis 180. Patient is now using eye with as good results as before the accident. No inconvenience except that a little more light is allowed to pass inside the eye as a result of the malshaped pupil caused by the iridectomy.

This case was covered under the State Compensation Act and was duly compensated for loss of time and disability sustained. Only one of three essential functions of the eye was impaired and that was the visual acuity—20-40—there being no disturbance of field or muscle function.

In estimating the disability of an organ, sustained by an injury, the Compensation Board takes into consideration the disability of the organ as it appears unaided by any mechanical appliances. For example, if an injured eye gives a *visual acuity*—obtained by showing the corresponding fractional value of the Snellen expression based on equal gradations—of 20-40 Snellen expression and fractional value of 9.10 with a value of visual acuity in percentage of 90, the Compensation Board would base its estimate on the above giving a disability of 10%, regardless of the fact that the vision may be brought up to normal by aid of a lens. They claim that the underwriters are liable for the actual disability and that if the injured can secure any mechanical aid it is left entirely with him.

Looking Backward Over Fifty Years of Health Work in Florida

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Former State Health Officer of Florida,
1889 - 1917

Serial No. 2.

The yellow fever epidemic of 1888 in Jacksonville practically terminated the first of December of that year. A few cases occurred during the first part of the month, but by Christmas citizens who had fled from the city at the commencement of summer began to return and business and travel became normal again. Although the sanitary authorities of Jacksonville and of other larger eastern centers of population of the state, where yellow fever had prevailed, strenuously fumigated all houses in which cases of sickness occurred, acting on the epidemiological information held at that time, yet there was still an insistence from many that there should be a general fumigation of all homes in the city whether occupied during the prevailing sickness or had remained empty. Accordingly, an appeal was made to the Marine Hospital Service, which had rendered aid in various ways, that this request should be given consideration. Some of the readers of this narrative will remember that several years before the occurrence of events here stated, Congress had set aside annually an "emergency fund of one hundred thousand dollars" to meet just such calamities as then confronted the State of Florida. This "fund" was subject to the disposal and control of the President of the United States, to be disbursed by the Secretary of the Treasury through bureaus under his supervision and management. The Marine Hospital Service was one of the bureaus which functioned in this manner. Mr. Cleveland was then President of the United States, and authorized an expenditure of fifty thousand dollars for this purpose. A general fumigation of all dwellings in the city was made under the supervision of the writer. Dr. D. M. Echemendia of Jacksonville carried out minutely the details of the fumigation, in a painstaking manner. To this general fumigation may be credited the non-return, non-recrudescence of the fever the following year—1889. It may be asked why Jacksonville did not have a return of the fever the following year, as had been the case with Tampa the previous year. The general fumigation killed the remaining infected mosquitoes, which had not been killed by cold weather or other causes. At that time the mosquito acting as a transmitting host of the yellow fever poison was not known, and the theory was only indistinctly understood; but stumbling on the fact through an impression that the infecting principle was gaseous, accomplished a destruction of an infecting cause not then brought to light, and not until over ten years afterwards, through the investigations of Reed and his contemporaries in Cuba.

As was the case with all county boards of health then existing in Florida, funds available to combat an epidemic disease or prevent its spreading was not on hand, nor could financial aid be adequately procured locally for that purpose or at that time. An Auxiliary Sanitary Association had been organized by philanthropical citizens of Jacksonville, and from which organization an Executive Council had been created, which assumed charge of community relief work among the destitute and needy.

Col. J. J. Daniel, a prominent attorney of Jacksonville, was elected chairman, with Mr. Chas. S. Adams, also an attorney of Jacksonville, as secretary. The other members of the Executive Council or Committee were Bishop E. G. Weed of the Episcopal Diocese of Florida, and Messrs. Patrick McQuaid, Dr. John C. L'Engle, P. L. MacMurray, Peter Jones, Chief of the Fire Department; W. A. McDuff and A. W. Cockrell, Jr., an attorney.

Unfortunately, Colonel Daniel fell victim to the disease very early in the struggle. The cares and duties of chairmanship were then placed upon Mr. Patrick McQuaid, who at all time—in season and out of season—gave his time, thought and energies to relief committees. The writer, who was in Jacksonville at that period, wishes to bear tribute to the untiring and unselfish energy of Mr. McQuaid. An invalid himself, and a constant sufferer, yet there never was a time when needed that he was not ready and willing to give the help asked for. Relief committees were appointed by the auxiliary and relief sta-

tions were located in various parts of the city, from which food, medicines, and other necessities of the sick were distributed, and nurses supplied. The sympathy of the whole nation came freely to the disease sufferers, by telegrams and letters, and unstintingly by donations of money most generous in size and amount, to hundreds of thousands of dollars. The money thus donated created a fund from which the auxiliary was enabled to render efficient aid and relieve great suffering. The medical profession from elsewhere came to the assistance of their overworked brethren and fearlessly gave their services, a willing sacrifice to duty in several instances, and who, like "Jim Bludso," saw their duty a dead sure thing, and went for it there and then. Local physicians and stragglers who volunteered. All gratitude to their memory. Let a pause be here made to recall the splendid heroism of one of Jacksonville's own physicians, in 1877, during the epidemic of yellow fever in Fernandina, a neighboring city. Dr. Francis P. Welford was that year President of the State Medical Society. Against the protest of his colleagues in Jacksonville, he went to Fernandina to give of his professional skill to the sufferers, many of their own medical men being sick. He sickened and died a hero-knight, battling in the sacred armor of his profession. All honor to the memory of these men, and may their names be recorded in the Hall of Fame of the state. The writer saw probably the first definitely diagnosed case of yellow fever in Jacksonville during the summer of 1888. He happened to be in Jacksonville on a short visit of a day and was prevailed upon by Dr. Neal Mitchell, President of the Duval County Board of Health, a personal friend, to remain overnight as his guest. Before retiring to bed Dr. Mitchell had a professional call to a sick man, just across the street from his residence on Julia street, at a small hotel. On returning home Dr. Mitchell remarked that he would like the writer to see the case the next morning, in consultation with himself and the city health officer, who, if memory serves correctly, was Dr. Kennedy. Examination of the patient the next morning gave distinctive evidence of yellow fever and he was removed to the "Sand-Hills," a contagious disease camp, the next day. Cases began to crop up in different parts of the city, showing conclusively that the infective cause had existed in the city for at least two weeks, and as is now known, could only be carried from sick to well through the agency of the mosquito as a distributing host. Towards the middle of August —possibly the 10th—the writer of this article received an urgent telegraphic call from the Duval County Board of Health to come to their professional assistance, as one of their local physicians, Dr. Baldwin, had died and many others were sick. The Marine Hospital Service had established a camp for refugees, leaving Jacksonville to spend a detention period of ten days before being allowed further travel out of the state; the neighboring states insisting upon this precaution of interstate travel, to inhibit the spreading of the disease. This camp was established at the St. Marys River Line, between Florida and Georgia, a most beautifully selected and picturesque spot, in shady oaks and high banks of St. Marys River. In honor of a Governor of the state, the camp was named "Camp Perry." Assistant Surgeon John Guiteras of the Marine Hospital Service was in charge, but afterwards was relieved by Surgeon Hutton of the same service. The Marine Hospital was also aiding and assisting by payment for disinfectants and other so-called disease-suppressing measures. There arose at this time some confusion, in administration of government aid, in rendering of bills and at the request of both the County Board of Health, the Auxiliary Sanitary Association, and the Surgeon-General of the Marine Hospital Service, Dr. John B. Hamilton, the writer consented to assume charge of what was afterwards known when attaining larger proportions, the Government Relief Service. Gradually control of the volunteer professional aid and direction of nurses were assigned to this management.

The gentlemen of the auxiliary who have been mentioned, have all passed to the great beyond, and because of the charity and benevolence have doubtless received, as they deserved, the approval of the Great Master. "For as much as you have done it unto one of the least of these my brethren, you have done it unto me." Gratitude and honor to their memory, and peace to their ashes. Prominent among those of Jacksonville's citizens who rendered valiant aid to the sick both by day and at night, and to the executive duties of the city government, was D. T. Gerow, who became acting mayor during the whole period of the epidemic. Soon after yellow fever was announced as epidemic in character, the City Council became disorganized by the Mayor and several members of the city government leaving the city with their families. The few remaining members of the city government elected Mr. Gerow as Act-

ing Mayor, and thus kept together a municipal organization. A most difficult task, because a grief and disease-stricken city confronted Mr. Gerow. With a fire department decimated in number, and likewise a police department, almost a state of chaos in municipal affairs presented itself requiring constant attention, both by day as well as by night, to maintain order. It was then that the writer of these happenings, by almost hourly association with Mr. Gerow, learned to know, respect and appreciate him for the sterling qualities of character and fearlessness for personal safety, when the interests of others were concerned, meeting every demand upon his time, and discharging every obligation of duty as it arose. Nor was Mr. D. T. Gerow the only one, either man or woman, who stood during that trying time, with their back to the wall of despair, battling with an invisible foe, and with no shelter to hie to, except a consciousness of rectitude and bravery to sustain them in the fight. There were many such noble examples of bravery during that epidemic, and which it is a pleasure to make mention of.

At the close of the epidemic, Mr. Chas. S. Adams, the secretary of the Auxiliary Association, wrote and published a memoir of the work of the Association, and in a most entertaining and interesting manner entered into details of administration, tabulating also the names of those who had lost their lives in the conflict with disease that year.

When business conditions became normal and all activities connected with the epidemic had ceased, there was a call meeting at the rooms of the Chamber of Commerce, then located over the National Bank of the State of Florida, on Bay street, to hear the final report of the Auxiliary Association and to bid "good-bye" to Dr. Joseph Y. Porter, who had been practically in charge of the situation in Jacksonville since August, but more especially in connection with the financial relief given by the Marine Hospital Service. Beautiful tributes were made to those who had valiantly stood at their posts of duty and had fallen in the fray. Likewise unstinted praise to those who fighting a concealed enemy in the dark, placed service above self, and fearlessly met and conquered every obstacle which arose when the sick and needy were concerned. When the gathering was about to adjourn and many "good-byes" had been tearfully said, Mr. Schumacher arose and, unwrapping a package, said he had been requested to give its contents to the individual to whom it was intended, but no name was given him when the package was placed in his hands. He inferred, however, from certain marks that the contents of the package was intended for Dr. Porter. On opening or unwrapping the package, a beautiful watch with heavy cable chain and charm came to view. The watch had Swiss movement, made abroad, with bell chimes striking the quarter of hour and minutes distinctive and separate in tone. The front of the double case was studded with large diamonds set as a "P" and the inside of the back of the case inscribed with name and language elegantly expressing to Dr. Porter the appreciation of the Auxiliary Association for his devotion to the people of Jacksonville during a most trying time of sickness. The chain was a heavy gold cable and the charm a miniature representation of a cork "life buoy" such as ships carry over their sterns for emergency use to passengers who were falling overboard. In the middle of one side of the charm a star in diamonds, and on the other a ruby "P." The presentation speech of Mr. Schumacher was a gem in itself, complimentary in tone, and with a ring of genuine feeling that caused many eyes to be wet from the emotion which his earnest language brought forth. Memory of that occasion even now swells the writer's heart with deep gratitude to his associates of those anxious days, with whom he was in almost hourly contact and who he learned to love and respect. Listening to what was said of him by Mr. Schumacher and others, he in reply said it appeared more to be an eulogy over his casket than what was intended for the living, and as he writes now, the perfume of flowers of esteem still lingers as fragrant as when given thirty-seven years ago. The mementoes of that occasion have been entrusted to the safekeeping of the eldest son, to be handed down by him to succeeding generations of the family. The design of the watch, chain, and charm was the thought of Mr. Joseph Crosby of Greenleaf & Crosby, now deceased. The inspiration of the charm was caught from seeing a "life buoy" on the stern of a vessel when crossing a ferry between New York City and New Jersey. It was a sentiment touchingly and beautifully expressed in an ornamental and attractive way.

(To be Continued)

ENDARTERITIS OBLITERANS*

Report of a Case With Spontaneous Amputation of the Foot and Leg.

HENRY E. PALMER, M.D.,
Tallahassee, Fla.

I have no new theory as to the cause or pathology of endarteritis obliterans, nor special treatment for it. I desire to present an interesting case that came under my observation several years ago.

James Larkin, colored, male, aged 75, farmer, applied for treatment for a round ulcer located on palmar surface of right foot over the head of the first metatarsal bone. A physical examination revealed that he had endarteritis, with its usual complications, and sequelæ. I treated him several weeks without much benefit. He drifted away, and I did not see him for several months. One day as he drove by in his wagon, he raised the stump of his leg, saying, "Doctor, you were right, I lost my foot." He made the following interesting statement: "After leaving you I visited several physicians without improvement. Finally my toe turned dark, the discoloration extending to other toes, spreading over my foot, and up my leg. The pain was excruciating, and I lived on morphine, not knowing day from night for three months. One day while trying to get down the steps I fell, breaking the bone just above the dead part. The parts below were black and dead, hanging by ribbons. I asked my family to cut off the dead parts, but they refused. I took scissors, and cut the ribbons, and the leg and foot dropped off. I then began to improve and here I am." This case is interesting in showing what nature will do at times without the help of medicine or surgery. Observe the stump, how nicely it healed, never giving him any discomfort, or pain. The old man lived many years, finally dying from an intercurrent disease.

Three other similar cases have come under my observation since then. One a white, female, aged 65, suffered intense pains in her leg and foot. Finally gangrene set in, and she had a similar experience, except the dead member hung on for months, till it almost shrivelled up, but the bone was sawn off, and she got fairly well.

The second case was a negro man about 50 years. He developed a perforating ulcer of foot, resulting in gangrene and loss of foot. The third was also a negro man about 70 who had a similar experience, ulcer, and beginning gangrene. A physician, thinking to head it off, amputated about the ankle; gangrene set in higher up, and he died very quickly.

My observation of these cases lead me to believe the best thing to do is to wait for the line of demarcation before operating.

*Read before the Annual Meeting of the Florida Railway Surgeons' Association, St. Petersburg, May 18, 1925.

SPOROTRICHOSIS—CASE REPORT

SCOTT R. EDWARDS, M.D.,
Fort Lauderdale, Fla.

An elderly woman presented herself with a skin affection of the right arm.

She gave the following history regarding this condition: Twenty-one months previous she stooped to pick up an object from the ground and at that time ran a stubble under the thumb nail. This initial lesion caused her very little discomfort, but it was very slow to heal and left a discoloration of the skin. Shortly, two lesions appeared at the base of the thumb, on its dorsal surface, followed by others along the lymphatics of the arm until at the time of examination there was a chain of scars and lesions in various stages of activity from the thumb to the axillary lymph nodes. During the elapsed period, various remedies had been tried and twenty of these small granulomata were incised.

Under sterile precautions we incised one of the lesions and cultured it on glucose-blood agar. After ten days at room temperature a typical circular growth, with marked striations, developed. Smears from these colonies showed branched mycelial filaments with typical budded spores.

Potassium iodide given internally showed a marked therapeutic result in a few weeks. However, it required several months of intermittent medication before a permanent cure was obtained.

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THE NEW VANDERBILT MEDICAL SCHOOL

The dawn of a new era of medical education is heralded in a recent bulletin issued by the medical school of Vanderbilt University. Five years ago Dr. Canby Robinson was elected dean of the school and following an extensive tour and investigation of most of the important hospitals and medical centers of the world he and his associates evolved the present unique medical school plan. Several years of intensive planning and an expenditure of over three million dollars have created the South's finest and most elaborately equipped center of medical instruction, which will officially open its first session in the new plant September 24, 1925. All departments of the school as well as the hospital are housed in one large building. The hospital has a capacity of 185 beds and will be devoted exclusively to teaching purposes. President-elect William D. Haggard, of the American Medical Association, in his presidential address, commented thusly on the advantages of the Vanderbilt plan:

"The new medical school of Vanderbilt University is entirely housed in the hospital, thus linking up the wards with the laboratories in an integral and intimate way. We feel that it will be a distinct gain. It will afford an unparalleled opportunity for the simultaneous study of the medical sciences and the patient. The pathologic department will be a guiding center. Fresh tissue and not merely postmortem of terminal processes will be studied. It will concentrate on the causes as well as the development of disease. With the close relation of the dispensary and the hospital, the pathologic department, where all the problems of the patient can be brought and where all the men can work as undergraduates, as interns, as residents and as members of the staff, it ought to foster a spirit of investigative interest in the patient that will be stimulating to the completest possible training."

The faculty has been entirely reorganized with the addition of many outstanding scientists of the nation as full time professors. The student body will be limited to two hundred. The school's endowment is an adequate one and the South and Nation will profit immeasurably by the work of this great institution.

INFECTIONS FROM SWIMMING

On account of Florida's geographical location and being surrounded almost entirely by water, the problem of infections secondary to bathing and swimming should receive the most serious consideration on our part. Every summer the usual crop of otitis media and sinusitis occur where swimming and diving are most common.

Due to different opinions held by physicians, often very little advice is offered to the public. The educational campaigns put on by the State Board of Health is commendable, the assistance given by each county nurse meets with hearty approval, but the part taken by individual physicians is one of passive indifference.

Recent observations tend to confirm our belief that many bathing epidemics of otitis media are not due to infected water but to nose and throat infection. The irritation to the normal mucous membrane from forceful diving, mechanical removal of protective secretions by being in the water too long, lowered body resistance from chilling, etc., are the important etiological factors. Most open body water that is condemned is not polluted and should not be condemned until laboratory analyses have proven it. An examination of the secretions in the nose will at any time show a variety of organisms present.

Few people know how to clean the nose; they blow and puff till whatever present is lodged at the eustachian orifice or sinus opening. Relief could be obtained by having patient blow the nose, holding one side closed, or still better by drawing the secretions back into the throat. An excellent suggestion is for patients to hold the nose closed and forcibly withdraw all air (and secretions) into the nasopharynx.

Inasmuch as we are not aquatic physiologically, an appeal to use artificial protection should meet with widespread approval.

When prophylactic remedies have failed and infection has taken place it is then our duty to intelligently treat these patients, remembering the causative factors and not make light of otitis media, sinusitis, etc. There is entirely too much deafness due to indifferent advice on the part of physicians.

LOCAL ANESTHESIA

Surgery has shown a marked trend in the past decade toward all forms of anesthesia other than general narcosis; so much so, that it is now by no means uncommon for a patient to request local anesthesia. Experiences during the late war proved the scope and value of local work and helped to place it in a wider field of usefulness.

Objection by busy surgeons and clinics, on the basis of the time consumed, has been largely overcome by having the trained anesthetist or assistant inject or infiltrate successive cases in advance, by the free use of pre-operative sedative hypodermic medication, and by the maintenance of absolute quiet in the surgery.

The advantages of local anesthesia have multiplied to include, not only protection to vital organs in cases suffering from damaged heart, lung or kidney, but also easier and more rapid convalescence from many operations, notably those on the eye, thyroid, chest and pleura, prostate and bladder, extremities, and in certain intra-abdominal procedures. In the hands of a trained surgeon there are practically few operations that may not be safely approached without a general anesthesia, especially when a gas anesthetist is present to cover any difficulty that should arise.

In the practice of local anesthesia a surgeon developes a respect for living tissue, a gentleness in manipulation, a technique of sharp, clean dissection and accurate hemostasis, that can but result in lessened shock and kindly healing regardless of the anesthetic he may routinely employ.

A resume of the surgical work in the past few years at the Duval County Hospital shows, among other interesting data, the growing use of "local," and may be said to indicate the trend of anesthesia in general hospitals elsewhere. Anesthetics listed under local include: regional, block, para-vertebral, trans-sacral, caudal, spinal and infiltration. It is worthy of note that ethylene came into use in this hospital in 1924 and was used that year in 111 cases.

YEAR.	OPERATIONS.	GENERAL ANESTHESIA.	LOCAL ANESTHESIA.
1919	69	58	11
1920	96	81	15
1921	178	148	30
1922	533	251	182
1923	701	370	231
1924	781	362*	419
1925 (6 months)	295	147	148

* Of these 111 were ethylene.

JOHN ADDISON FORDYCE.

The death of Dr. John Addison Fordyce on June 4, 1925, has deprived the medical world of an able teacher and research worker. His continued studies and investigations will go down into the annals of modern medicine as distinct contributions to the science and art of Dermatology and Syphilology.

Dr. Fordyce was born in Guernsey County, Ohio, on February 16, 1858. He studied at Adrian College, the Chicago Medical College, and the University of Berlin, receiving the degree of Doctor of Medicine from the two last named institutions, from the Chicago Medical College in 1881 and from the University of Berlin in 1888. As early as 1891 his Alma Mater, Adrian College, from which he previously received the A. B. and A. M. degrees, conferred upon him, as a recognition of outstanding service and achievement, the honorary degree of Doctor of Philosophy.

Dr. Fordyce was Professor of Dermatology and Syphilology at the College of Physicians and Surgeons of Columbia University, Special Regional Consultant of the Division of Venereal Diseases of the United States Public Health Service, Visiting Dermatologist to the New York City Hospital, and Consulting Dermatologist in the Neurological Institute, Presbyterian Hospital and Women's Hospital of New York City. He was known for his genuine and unselfish devotion to and interest in the prevention of disease and the advancement of medicine. He was ever ready to join enterprises which offered opportunities for service. In 1920 he gave a notable series of lectures, on the diagnosis and treatment of syphilis, at the Institute on Veneral Disease Control and Social Hygiene held at Washington, D. C., under the auspices of the United States Public Health Service. He was also an active member of a number of medical and scientific societies.

In 1896 Dr. Fordyce called attention to a disease affecting the mucous membrane of the lips, and consequently known as the "Fordyce Disease." This gave impetus to a further study of this cutaneous infection by Dr. Fordyce and others, which led to its definite diagnosis and mode of treatment. He is also known for his research in quantitative studies of syphilis from a clinical and biological point of view, neurosyphilis, spinal fluid examinations, congenital syphilis, the pathology of syphilis, and dermatology.

Dr. Fordyce was a prolific medical writer. He is particularly known for his contributions to Morrow's System of Genito-Urinary Diseases, Syphilology and Dermatology, Parker's Surgery by American authors, and Wood's Reference Handbook of the Medical Sciences. He is the author of many articles in medical journals and magazines. He was editor of the *Journal of Cutaneous and Genito-Urinary Diseases* from 1888 to 1896, inclusive, leading this specialized professional journal through an important stage in its growth and development.

Dr. John Addison Fordyce will be remembered by many students as a skillful teacher and by the medical profession at large for his research contributions to a more complete knowledge and practice of Dermatology and Syphilology.

RECENT CANCER RESEARCH.

Daily newspapers during the past few weeks have been filled with announcements and discussions of the so-called discovery of the "cancer germ." The discovery is attributed to two English research workers, Dr. William E. Gye and Mr. J. E. Barnard. The work of these two men is heralded in most instances by the press as meaning the end of all malignant conditions the human body is heir to. Undoubtedly these men have carried on some very excellent investigations and the work that they have described in detail in the *Lancet* will add much to our knowledge of cancer. However, in an editorial appearing in the *Journal of the American Medical Association*, August 8, 1925, the medical profession is warned against becoming too enthusiastic until the hypothesis advanced by the above workers is definitely proven. The following from this edi-

torial is well worthy of quoting: "The critical reader of the reports in the *Lancet* obtains the impression that an intricate hypothesis has been developed on a small number of facts, and that if on reinvestigation by others new facts should be discovered, the hypothesis will collapse. In view of the weighty and abundant evidence that the production of cancer does not depend on or require a specific cancer germ, and that some forms of malignant growths can scarcely possibly be produced by infection (*e. g.*, complex malignant teratoid neoplasms arising in the fetus in utero), it will require much more proofs and repeated corroboration of these observations before it will be demonstrated that all cancer is caused by a 'cancer germ,' either with or without some chemical accessory agent."

In a recent pamphlet issued by The American Society for the Control of Cancer the lay-press is condemned for its sensational promulgation of information concerning the so-called cancer discovery and while they do not attempt to detract from the investigations made by Dr. Gye and Mr. Barnard, they merely advise the profession to refrain from accepting with too much enthusiasm the belief that our cancer problems have been solved. The following statement of Dr. Soper, the Managing Director of the American Society for the Control of Cancer, is embodied in this reprint: "Information given to the public by cable from England to the effect that the cause of cancer has been found in an ultramicroscopic germ should lead no one to suppose that the methods of dealing with this disease hitherto developed by the scientific world are about to be superseded. There is no reason whatever to relinquish the vigilance in seeking to discover cases of cancer in their earliest stages and in delaying the radical treatment by surgery and radiation which the foremost students of cancer have come to look upon as standard procedures.

"What has been discovered in England is apparently the causative agent of a particular kind of tumor in certain animals. This is a long way from furnishing ground for the opinion that cancer in human beings is due to the same or a similar parasite, or, in fact, to any microorganism whatever. Still more remote is the possibility that the discovery will lead to the preparation of a specific cure for the disease called cancer.

"The best security which is afforded today against cancer lies in the earliest possible recognition of the disease and the prompt employment of skillful surgeons and radiologists."

Let us not be too hasty in accepting or rejecting the findings of the two English workers until further investigation has proven or disproven their work.

STATE NEWS ITEMS

This department is supervised by Dr. Ralph N. Greene, Jacksonville. Members of the State Association are requested to forward to Dr. Greene or the Editor such news items as they may think of interest to the readers of THE JOURNAL.

Dr. W. C. Payne of Pensacola returned from Rochester where he spent a few weeks after attending the A. M. A. in Atlantic City.

The Kiwanis Club of Pensacola conducts a free clinic at the Pensacola Hospital for the under-privileged child. Dr. C. Hutchinson, Dr. M. A. Lischkoff, Dr. Nobles and Dr. Webb constitute the medical staff. All are Kiwanians.

Dr. J. M. Hoffman, formerly of New Orleans, is now in charge of the X-ray and radium departments of the Pensacola Hospital.

Dr. Benjamin F. Barnes of the State Hospital medical staff is reported to be constructing a new type of submarine radio aerial in the bed of a gravel pit in the Flint River, Chattahoochee, from which exceptional radio broadcasting reception over great distances is expected. Incidentally, it may be mentioned that Doctor Barnes has become financially independent over his discovery of the valuable gravel pit from which material is being mined for road building in Florida. The doctor's work among the unfor-

tunate wards of the state at Chattahoochee is purely philanthropic. Unfortunately most public medical service appointments can only be filled by wealthy doctors for the love of the service and not for the meagre salaries offered.

Dr. H. W. Wade, accompanied by Mrs. Wade, the latter being an expert laboratory technician, left St. Petersburg on July 21st for post-graduate work in New York City. They will return in September.

Dr. Roscoe Knowlton and family will return to St. Petersburg shortly from an extended visit to European cities.

Dr. N. Worth Gable has entered the eye, ear, nose and throat specialty in St. Petersburg. His reception by the profession is said to have been exceptionally cordial.

Dr. A. C. Hamblin continues to occupy the position of city health officer, Tampa. Doctor Hamblin was largely responsible for the success of a number of large public health projects while he was an attache of the State Board of Health of Florida.

Dr. W. M. Ives of Lake City is said by his professional brethren to be suffering with the burdens of a new and oversized hat. The doctors of Columbia County are agreed, and unanimous in an opinion (most remarkable state of affairs among any bunch of doctors) that the cause is a nice new infant son at his home.

Dr. R. B. Harkness of Lake City will spend two weeks in Montreat, N. C., during August.

Dr. L. M. Anderson of Lake City says Doctor Bates' wife told him that every time she happened to look at a car on the Dixie Highway she saw some of the Jacksonville doctors, usually Luther Holloway or H. D. Van Schaick or Wm. J. Buck, traveling either east or west, and wants to know if the occasion of the travel is attendance upon medical society meetings or just a matter of the wealthy, traveling in indolence and luxury. Mrs. Bates, it is not wealth and the cars used are Fords rented from a local garage and the occasions are medical society meetings, or acting as best man at a wedding in Valdosta.

Senior Officer R. W. Browne of United States Veterans Bureau Hospital No. 63, Lake City, has awarded contracts for the construction of a new mess hall to accommodate five hundred patients. One mile each of concrete roads and sidewalks are being built at this hospital. Doctor Caldwell, the clinical director of the hospital, will take special cardiological training at Boston during August and September.

Dr. Herman Watson, Orlando, has sailed for Vienna (not in the state of Georgia, but across the Atlantic) for the purpose of attending the surgical clinics there. He will return in September. Dr. C. S. Breedin of Orlando, who is now in Paris (not Kentucky, but a city in France), will join Dr. Watson in Vienna. (It is assumed by the writer of these notes that the doctors will eat much sausage and guzzle much lemonade while in Vienna.)

Dr. Robert Scherlitznauer (affectionately known by his friends as Doctor Bob) is recreating at Bennett Hall, Mackinac Island, Michigan.

Dr. Roy Webb and family of Delray, Florida, are on a vacation at Asheville, N. C. Doctor Webb writes that although he has been a member of the Palm Beach County and Florida State Medical Society for two years he has never received a copy of THE JOURNAL and wants to know how to get THE JOURNAL. (Dr. Shaler Richardson, Editor and Secretary, 111 W. Adams street, Jacksonville, Florida, please note this gouge at us and send the gentleman his JOURNAL at once or accept my resignation from writing this monthly gossip.—R. N. G.)

Dr. S. B. Strong, formerly of Florida and a member of the state society, who has for years been surgeon for a large sugar corporation of Marcane, Cuba, is visiting friends and relatives in Palatka. The Doctor contemplates returning to Florida eventually for the purpose of entering practice in this state.

Dr. John T. Hosey and family of Palatka are taking an extensive automobile trip through Alabama, Mississippi and adjoining states. They will be absent for several weeks.

Mrs. E. W. Warren, wife of Dr. E. W. Warren, Palatka, together with her sister, Mrs. S. C. Wood, wife of Dr. S. C. Wood of Leesburg, are taking a pleasure trip by automobile through Georgia, the Carolinas and the city of Washington. They will be gone two months. (Ladies of the families of Florida doctors, please note that

so long as the present management of THE JOURNAL and the money lasts you shall have your share in the items composing this news section. Send the items to me and blame the editor of THE JOURNAL if they don't appear in print.)

Dr. W. L. Hughlett of Cocoa is away on a two months' vacation in New York City. He will spend some time among the Canadian Thousand Isles. (Doctor Hughlett is strictly temperate. What a pity! what a pity!)

Dr. and Mrs. Walter Lincoln of Cocoa sailed last month from New York for a six months' stay in Europe.

Dr. and Mrs. Walter Clayton Page, Cocoa, returned last week from a month's trip to Atlanta, Richmond, Washington and Baltimore. The trip was made with no discomfort by automobile. Doctor Page has been appointed city health officer of Cocoa, vice Doctor Lincoln, resigned.

A Miami physician of prominence complains about a speed trap in the town of Taft. This town is located between Orlando and Kissimmee. No doubt Doctor Christ of Orlando will be glad to mention this complaint to his honor the Mayor when he next goes to Taft. Doctor Christ is appointed because he is athletic enough to take the chance. The complaining witness testifies that he was fined thirty dollars or twenty days for making thirty miles an hour and says there is no sidewalk crossing the highway and that he noted the presence of only two stores.

The summer medical business at Daytona has been exceptionally stimulated this summer. For the first time all three local hospitals have been kept open and are operating at full capacity. There is no epidemic in Daytona other than a large group of home-seekers coming there with well-filled purses with which to purchase homes. The doctors in Daytona have but few automobile accident cases to deal with owing to an efficient police department and a sensible traffic code.

An additional one-hundred-fifty-bed hospital is planned for Daytona.

The newest cult in Florida is the medical realtor. Realtor has for its etymological derivation the words real, meaning genuine and tor coming from the word torres, meaning bull, viz, genuine bull.

The Duval County Hospital, Jacksonville, recently constructed, will possibly be opened by January 1, 1926. The institution is exclusively for the care of the indigent sick of Duval County. Dr. John E. Boyd is president of the staff. Dr. R. H. McGinnis is a member of the board of control. The staff organization is one of permanent personnel. At the last monthly staff meeting plans were made for the securing of an exceptionally high-class equipment, and it is apparent that the needed items will be forthcoming. Doctor Boyd spoke a few words about the future plans of the hospital.

Dr. John S. McEwan, the president-elect, left Orlando on June 9th for a three months' trip to Europe. He was accompanied by his family. He is leaving his family in a residential suburb of London while he and Doctor Halton of Sarasota make a tour of the continent, visiting medical centers of France, Germany and Austria. (This item, relating to our president, brooks of no facetious comment.)

Dr. Hewitt Johnson left Orlando June 20th for a trip of six weeks or more through the Northwest. He anticipates visiting the eye, ear, nose and throat clinics of Chicago and Rochester, Minn. During the rest of his trip he hopes to enjoy the grandeur of the Yellowstone Park.

The Orange County Medical Society is one of the live associations of the state. It is composed of the counties of Orange, Seminole and Osceola. Seminole county was created by the Legislature about eight years ago. The members of the Orange County Society who were separated by county division have continued their loyal support. Osceola joined the society last fall. The meetings are held in Orlando ten months out of the year. One meeting each year is held in Kissimmee and one in Sanford. This year the Orange County Association was well represented at the meeting of the American Medical Association at Atlantic City, Drs. G. H. Edwards, L. C. Ingram and C. D. Christ of Orlando being present. Doctor Rivers of Kissimmee and Doctor Ralph Stephens of Sanford were with the party.

Mrs. W. E. Sinclair, Miss Virginia and Master John, wife and family of Doctor Sinclair, pediatrician, Orlando, left July 10th for a visit to relatives in and around Toronto. (Toronto is in Canada.) The genial Doctor is no doubt looking upon little sufferers with a wistful sadness since the departure of his own loved ones.

Dr. Marvin Smith left last night for the North (July 20th). He will combine study with pleasure for a period of one month. He will visit Baltimore, New York and Toronto.

Miss Margaret Neal, daughter of Dr. and Mrs. T. A. Neal, recently graduated from the Beechwood School, Jenkintown, Pa. After visiting

several Eastern points, including New York and Washington, she returned to Orlando for the summer vacation period.

Capt. Wm. Munly, Medical Corps, United States Army, instructor in cardiology, school of aviation medicine, Mitchell Field, Long Island, New York, is giving to the profession of Jacksonville a series of lectures on diseases of the heart. Captain Munly was trained for a number of years under the world's greatest cardiologists, including McKensie and Lewis of England. The project is the beginning of a movement on the part of Jacksonville doctors to bring post-graduate work to one's home city, thus affording doctors who might not otherwise find it convenient to go away the opportunity of advanced medical thought. Dr. Herman H. Harris, together with Doctors Stanley Erwin and Louie Limbaugh, all specialists on internal medicine, are fostering the course.

Dr. Benjamin F. Barnes, Chattahoochee, together with his financial associate, Mr. Charles Blount, are on a tour of south Florida by auto. Doctor Barnes recently purchased large holdings near Brooksville and with Mr. Blount is planning the erection of a wooden box factory in south Florida.

The newly appointed State Board of Health held an initial meeting at Tallahassee recently. Hon. Charles H. Mann was elected president for a term of two years. Doctor Smith of Tampa and Doctor Nobles of Pensacola are the newly appointed members. Doctor Smith is one of Florida's most capable and prominent doctors. Doctor Nobles has occupied a prominent place in the profession of west Florida, is one of ability and should serve his state ably as a member of the State Board of Health. Doctor B. L. Arms, senior bacteriologist, was appointed acting health officer. Dr. Raymond C. Turck had announced that he did not desire reappointment.

Dr. C. F. Sayles, Miami, is in Europe with his family.

Dr. G. Frazer Wilson, Miami, formerly Professor of Obstetrics, Medical College of South Carolina, Charleston, died recently at Johns Hopkins Hospital, Baltimore.

According to press notices Dr. Tom Williams of Washington, D. C., has been arrested on a warrant sworn out at Miami, at which place the defendant is alleged to have practiced medicine without having a certificate from the State Board of Medical Examiners. There are many instances of doctors coming into the state shortly after the state board has met and who proceed to practice under the guise of acting as assistant to some duly qualified physician. The procedure is one of evasion of the law and attorneys have expressed the opinion that the qualified doctor who thus shields one practicing without license is particeps criminis and subject to proceedings on the part of the state board, aimed at revocation of license.

STATE BOARD OF HEALTH NOTES

Some time after the adjournment of the Legislature Governor Martin announced his appointments for the State Board of Health—Mr. Chas. H. Mann, Jacksonville; Dr. H. Mason Smith, Tampa, and Dr. W. D. Nobles, Pensacola. Mr. Mann was a member of the retiring board while the other two were new appointees.

The board met at Tallahassee Saturday, July 18th, to organize, and Mr. Mann was chosen president of the board for the next two years. Governor Martin discussed the needs of health work with the members and all agreed that the continued growth of the state depends largely on the continuation of the present freedom from outbreaks of communicable diseases and the insistance that Florida shall be known throughout the country as a state that not only cares for the health of her citizens but also for the health of her visitors. On account of the great number of tourists who visit us special care must be taken to guard against the introduction of disease.

To avoid the occurrence of cases of preventable diseases the Bureau of Communicable Diseases has outlined an extensive immunization program that will be offered to all parts of the state and it is hoped that it will be freely accepted. The program includes protection against diphtheria, typhoid and smallpox and no one knows when we may be visited by the virulent type of smallpox that has been prevalent in many sections of the North in the past few years where there has been a mortality of 20 to 40 per cent of the victims.

The autoist camps are a tremendous problem in this state and they require constant supervision to keep them sanitary and safe.

Cooperating with the United States Public Health Service, there will be a thorough survey of all shell-fish areas in the state.

Governor Martin realizes the great respon-

sibility placed on the board and is heartily in accord with their plans for safeguarding the health of the people.

Due to the fact that the board desired time for consideration as to the successor of Dr. R. C. Turck, State Health Officer, Dr. B. L. Arms of the Bureau of Laboratories was appointed acting State Health Officer from August 1, 1925.

ABSTRACT DEPARTMENT

SURGERY

Focal Infections in Peptic Ulcer. Haden, R. L., and Bohan, P. T. J. A. M. A., 1925, No. 1, page 409.

The authors studied a series of seventeen cases of clinical gastric or duodenal ulcer in which there was evidence of a relationship to a focal infection either dental or tonsillar. Bacteria isolated from these foci and injected into rabbits produced lesions of either the stomach or duodenum in 53 per cent of the animals while control animals injected with bacteria from foci in patients supposedly not suffering with peptic ulcers gave only 7 per cent of such lesions.

A very interesting feature was the localizing of the gastric lesions near the pyloric ring and the duodenal lesions in the upper one-third of the duodenum, the portion where free hydrochloric acid is found.

This seems to support Rosenow's contention that bacteria, especially streptococci, isolated from a foci of infection in patients having gastric ulcers or from the ulcer will almost invariably reproduce ulcers of the stomach when injected intravenously into animals. A thorough study should be made of all patients suffering with peptic ulcers and all chronic infections and suspicious foci should be removed. All dead teeth, even when showing no X-ray evidence of degeneration, may have enough bacteria to give serious trouble and therefore should be removed. They also suggest that many if not most gastro-intestinal disturbance of function are due to foci of infections too small to be demonstrated and not severe enough to cause ulceration. G. H. E.

The Progress of the Acute Appendicitis at the Boston City Hospital from 1880 to the Present Day. Duggan, D. J.

The most interesting point of this article is shown in the statistical table giving the number of cases of acute appendicitis diagnosed from 1895 to 1922 and the mortality rate per year. The increase in size of the hospital may have a bearing upon the number of cases, but the decrease in mortality from 20 per cent to 3 per cent is a distinct credit to early diagnosis and early operation.

YEAR.	CASES.	MORTALITY PER CENT.
1895–1896	82	20.7
1896–1897	84	19.0
1897–1898	109	16.5
1898–1899	137	12.4
1899–1900	146	10.8
1900–1901	173	15.6
1901–1902	191	18.8
1902–1903	164	12.8
1903–1904	194	10.3
1904–1905	211	9.9
1905–1906	229	13.0
1906–1907	322	9.0
1907–1908	315	11.1
1908–1909	399	9.2
1909–1910	314	10.8
1910–1911	415	7.2
1911–1912	478	7.7
1912–1913	590	7.8
1913–1914	559	7.1
1914–1915	604	4.1
1915–1916	744	6.8
1916–1917	804	1.8
1917–1918	737	4.4
1918–1919	559	5.7
1919–1920	608	3.4
1920–1921	632	3.6
1921–1922	913	3.1

G. H. E.

Blood Transfusion, Its Dangers and Limited Value. Baldwin, J. F. The American Journal of Medical Sciences, July, 1925, No. 640, page 118.

Attention is called to what the author terms a recent epidemic of blood transfusions, which is passing over the country. In a review of the subject the epidemic which lasted from 1863 to 1884 is referred to. The author reviews recent literature by, and quotes from, Peterson, Crile, Lewishon, Heyd, Copher, Richard Cabot, Lee Carrington and others. There is some difference of opinion, but most of them agree on certain fundamentals.

The consensus of opinion is that blood transfusions are of major importance, and that the mortality resulting from such transfusions is much higher than is generally believed or admitted.

Blood transfusions are of no value and sometimes dangerous in cases of acute septicemia or

bacteremia. It is of no value in cases of chronic sepsis except where there is pronounced aenemia. It is of no value in cases of shock except when due to severe hemorrhage.

It is unncessary in any of the milder forms of secondary aenemia. It may be of considerable value in marked secondary aenemias in anticipation of operation, and in acute aenemias resulting from severe hemorrhage.

The value of blood transfusion in pernicious aenemia is seriously questioned. A doubt is raised as to whether life is prolonged.

In concluding he says its very great value in hemorrhage seen occasionally in new-born infants has apparently been conclusively established. It seems to be in such condition unnecessary to type the mother's blood, which can be taken at once, and the injection of a small amount into the vein of the infant, or preferably perhaps into the superior longitudinal sinus, may prove a life-saving procedure. T. Z. C.

Studies in Experimental Syphilis, Paper 3—Further Observations on the Possibility of Cure of Syphilis in the Rabbit with Arsphenamine. Allen M. Chesney and Harold E. Kemp from the Department of Medicine, Johns Hopkins School, Baltimore. Journal of Experimental Medicine, July, 1925, Vol. XLII, No. 1, page 17.

They refer to Neisser's conclusion that failure to reinoculate a syphilitic animal, whether treated or untreated, indicated the existence of the first infection, and that a successful reinoculation, on the other hand, indicated that the first infection had been eradicated. They continue their studies with a rabbit with this conclusion in mind.

Their experiments indicate that when a rabbit is treated early (41 to 50 days) that reinoculation is accomplished, the lymph node infection having been abolished. They were successful in accomplishing this in 92.3%. Of the thirteen rabbits treated 180 to 193 days after inoculation only one or 7.7% was susceptible to reinoculation. Their work indicates that the susceptibility to reinoculation depends entirely on the interval between the inoculation and the commencement of the treatment. They do not conclude from this that because the rabbit is not susceptible to reinoculation that the first infection is still present. They continue their studies further in Paper No. 4, published in the same issue of this magazine, in which this conclusion is further supported. They further interpret their findings as indicating an acquired resistance which persists even though no trace of the first infection can be demonstrated. T. Z. C.

OBSTETRICS.

Responsibility of the Medical Profession in Further Reducing Maternal Mortality. Austin Flint, M.D., American Journal of Obstetrics and Gynecology. Vol. IX, page 864. June, 1925.

The first and most important factor in reducing maternal mortality is more thorough education of the undergraduate student. The average medical student can not always be made an obstetric specialist, but he can be given more drilling in the so-called normal cases. Unwarranted interference in the course of normal labor causes many of the complications that result in invalidism and actual death.

During the past few years clinical methods of instruction in obstetrics have increased in importance and didactic methods have become relatively unimportant. Other changes in methods of teaching are mentioned and a detailed account of a student's training given.

Maternal mortality will be reduced as soon as operative deliveries are taken out of the hands of the imcompetent and sent to maternity hospitals. There should be more of these special maternity hospitals, both for the benefit to the patients and for the better training of medical students and nurses. General public is demanding obstetrical specialists more and more. Obstetrics should be invested with greater dignity and better paid; the general public should be taught to adequately appreciate such services. Thus better men would be attracted to this branch and the present mortality correspondingly decreased.

Labor is not a normal function under modern conditions. More than twenty-five thousand women die from childbirth annually in the United States. At least a quarter of all women that undergo labor are more or less invalided and suffer unnecessary pain. Three to seven per cent of all babies are killed.

The author then discusses the modern treatment of sepsis, eclampsia and hemorrhage, which are the cause of a large proportion of the deaths. Sepsis is preventable in a large measure and better results would follow the establishment of more special hospitals and a better aseptic technic.

Eclampsia is preventable and can be almost eliminated by establishment of more prenatal clinics and by better prenatal supervision among private patients. We would also improve our

statistics by the adoption of a more conservative method of treatment.

In hemorrhage all precautions must be taken to prevent it. Induction of labor is the most frequent cause of death from this source. High forceps should never be attempted except by an expert. Other forceps operations are performed too frequently.

Cesarean sections are done too freely or for insufficient indications. In the best of hands it carries a mortality of from two to five per cent. The routine application of forceps in normal cases is a source of danger because too many consider themselves sufficiently expert and cause serious injury instead of preventing. The same applies to the routine version.

In short, less operating, more conservatism is the chief remedy for the present high mortality. Education of the medical student, education of the medical men not now expert, education of the public to demand better service, and willingness to pay for it, the establishment of more special hospitals, will go far towards accomplishing this desired result. S. R. N.

OPHTHALMOLOGY.

Tower Skull, Oxycephalus. Frederick A. Davis, M.D., American Journal of Ophthalmology. July, 1925. Vol. 8, No. 7, page 513.

The author defines the condition as follows: Briefly the condition might be described as a congenital malformation of the skull of unknown origin, perhaps developmental, due to premature synostosis or fusion of certain sutures of the base and vault, characterized by a high, pointed or dome-shaped configuration of the skull, accompanied by exophthalmos of varying degrees, and marked reduction in vision due to secondary optic atrophy. The disease was first described by von Graefe in 1866, and later more thoroughly by Michel in 1873, who definitely associated optic atrophy with cranial deformity.

Under symptoms and physical signs the following are listed:

1. Impairment of vision due to optic atrophy.
2. Exophthalmos.
3. Strabismus.
4. Nystagmus.
5. Skull deformity.
6. Headache.
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Impairment of vision varies from a mild amblyopia to a complete amaurosis as a result of optic atrophy. Exophthalmos is the most common physical sign observed, occurring in ninety-eight of the ninety-nine case histories reviewed. Skull deformity varies from a merely tall head to the more typical findings, namely:

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Widening or bulging temporal fossæ (typical severe type).

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Feebly marked superciliary ridges.

Shallow orbits.

Prognathism (mild cases).

High, narrow palatal arch.

Deviation of nasal septum.

Obliteration of sutures, thickenings or depressions.

Crista Sagittalis—prominent ridge along anterior portion sagittal suture (mentioned by many authors, not present in cases herewith reported).

Asymmetry of face.

X-ray findings are among the most interesting changes found and form one of the striking and important points in the diagnosis.

The more typical radiographic findings show thinning of the skull, together with depressions and ridges, or the so-called digital impressions. These are seen over a large portion of the cortex, often throughout. The skull appears honeycombed, the depressions conforming to the underlying convolutions. These depressions are attributed by most authors to the pressure of the underlying convolutions in a skull unable to expand due to suture closure. Vessel markings are exaggerated. The base of the skull also shows the result of this craniostenosis, as the middle fossa is often pushed down near the level of the posterior fossa and the anterior fossa is shortened and distorted. The frontal sinuses are obliterated in extreme cases. Obliteration of ethmoids has also been noted. The shallow orbits can be plainly seen. There may be a definite protrusion at the anterior fontanel and at times an actual break in the skull and protrusion of brain; a spontaneous decompression.

Suture obliteration is usually seen. The sella may be clearly outlined. It may be widened and displaced backward. (Fletcher.)

The author reports in detail six cases coming under his observation in the department of oph-

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Suture obliteration is usually seen. The sella may be clearly outlined. It may be widened and displaced backward. (Fletcher.)

The author reports in detail six cases coming under his observation in the department of oph-

thalmology in the University of Wisconsin. The conditions occur much more frequently than is generally believed. In order to differentiate this condition from congenital idiocy the case of the latter condition is reported for contrast. This condition has been ascribed to rickets and meningitis, but the author believes it to be essentially a fault of development. S. A. R.

DERMATOLOGY.

Dermatitis Produced by the Portuguese Man-of-War. E. D. Crutchfield, M.D. Archives of Dermatology and Syphilis, Vol. XII, No. 1, page 72, 1925.

Crutchfield's report of a dermatitis from contact with the Portuguese Man-of-War in the July number of the Archives is interesting to readers of the FLORIDA STATE MEDICAL JOURNAL, especially at this time of the year when it is not an uncommon occurrence for bathers at the Florida ocean beaches to develop this painful dermatitis. The following summary of the article:

1. The tentacles of the Portuguese Man-of-War contain an irritant substance capable of producing an acute dermatitis.

2. The dermatitis varies from an urticarial line to a linear coagulation necrosis, varying with time of contact.

3. The acute symptoms of the disease are alleviated by the application of weak antacid solutions.

4. The lesions heal, leaving a hematogenous pigment, which is slowly absorbed. In some instances, healing is followed by permanent scar formation. J. L. K.-S.

ROENTGENOLOGY.

The Clinical Importance of Chronic Changes in the Appendix. Franklin W. White, M.D. The American Journal of Roentgenology and Radium Therapy, January, 1925, page 12.

The term "Chronic Appendix" is a poor one. There are practically no chronic inflammations in the appendix with the rare exception of tuberculosis. There are many chronic changes resulting from previous or recurrent inflammations such as scar tissue, fibrosis, adhesions, and obliterative changes.

The roentgenologist has a heavy responsibility when he makes a diagnosis of "chronic appendix," as this is frequently equivalent to saying to the family doctor or surgeon, "take it out." Clinical experience has shown that we should be slow in diagnosing chronic appendicitis as a cause of digestive symptoms unless there is a clear history of previous acute or recurrent attacks and no other cause is found for the digestive disturbance.

Graphic roentgen evidence is striking and makes a great impression. The signs are divided into two classes, the direct and indirect. The direct roentgen signs of chronic changes in the appendix can be listed as follows:

Tenderness, fixation, kinking, changes in shape and position, lack of filling, slow emptying, beading and adhesions.

The indirect signs are pyloric spasm, ileal stasis, and, rarely, gastric residue. These signs are merely suggestive, several being necessary for diagnosis.

The examination of the appendix is usually part of a complete gastro-intestinal examination, and the appendix may be filled at the end of six hours, but at this time it is often covered by coils of ileum, and not easily seen. The best time for examination is from 12 hours onward after the ileum is empty. It may be necessary to follow the patient for two days or more, to see if there is delay in emptying the appendix. The normal appendix empties usually in a day or two, and, occasionally, not for three or four days; but it is always suspicious when an appendix remains filled for a day or two after the cecum is empty, especially if any of the signs are present such as tenderness, narrowing, or fixation.

Tenderness is the best single sign of pathology, operation rarely being made if there is no tenderness when the appendix itself is moved under the palpating finger or spoon when filled. This definite tenderness of a visible appendix is a far more valuable sign than tenderness over McBurney's point, which may be over the appendix or five or six inches from it. Appendices that do not fill on youth or middle aged patients are suspicious of pathology. Practically all pathologists agree that obliteration is a sign of disease and is due to repeated deposits of scar tissue. Segmentation, or beading, does not necessarily mean disease as it probably results from a tonic construction, or a drying out and a separation of the contents of the appendix. Fixation is important and is usually due to adhesions. Changes in the shape and position have slight bearing on the health of the appendix.

The roentgen examination of the appendix is a very delicate method. It discovers many things which were unsuspected, and incidentally many things which may trouble the patient very little,

such as, poor mobility, small fecal masses, peculiar shapes, obliteration of the lumen, beading, and moderate delay in emptying. No organ is so often removed without cause because of some anatomical changes.

Finally, the diagnosis of chronic appendix should be made only in connection with clinical history, those cases having the appendix removed without a history of acute or recurrent attacks are usually followed by a continuance of their digestive symptoms. W. McL. S.

OTO-LARYNGOLOGY

Recognition of Sinus Disease in Children. Roy M. Barlow, M.D. Annals of Oto-Laryngology, June, 1925.

With fitting tribute to Dean and Byfield for their investigations of sinus disease in children, Barlow immediately draws the analogy of "chronic colds" and sinusitis as seen in children.

Believing large numbers of children in the past have had unrecognized infections of the paranasal sinuses he pleads for closer observations on all cases of "chronic colds" and impresses the fact of the extent of sinus development in the young, mentioning the presence of antrum in infants aged 6 months and ethmoids at 12 months and frontals at 3 to 4 years, believing lack of this knowledge of anatomy explains past errors in diagnosis.

Affections of adult life as hay-fever, asthma, polyp formations are reasonable sequelæ of sinus disease in child life.

Chorea, arthritis, iritis, nephritis are in many cases focal symptoms of the local disease in childhood.

If the child uses many handkerchiefs during the day, has a muco-purulent nasal discharge, a vestibulitis, excoriation of the nares with a secondary pharyngitis or laryngitis and possibly a bronchitis with enlargement of the anterior cervical nodes, the suspicion is of the sinuses and symptomatic treatment directed elsewhere will avail little.

Barlow believes the X-ray an aid in diagnosis. In the treatment he says local medication is unsatisfactory except in acute cases. In subacute or chronic pathology surgery is indicated.

J. L. B.

AMERICAN BOARD OF OTOLARYNGOLOGY

An examination was held by the American Board of Otolaryngology on May 26, 1925, at the Medico-Chirurgical Hospital, Philadelphia, with the following result:

Passed	137
Failed	20
Total examined	157

The next examination will be held at the University of Illinois School of Medicine on October 19, 1925. Applications may be secured from the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

DALLAS WILL ENTERTAIN THE SOUTHERN MEDICAL ASSOCIATION IN NOVEMBER

A warm invitation is being extended to the doctors of the South to attend the annual meeting this fall, and preparations are being made to entertain between four and five thousand. Already 1,500 rooms in the best hotels have been set aside for this purpose, and it is estimated that more will be available.

Dallas has all the chief requirements for a successful convention city; ample hotels and auditoriums, accessibility, facilities for entertainment and diversion, coupled with whole-hearted hospitality on the part of the citizenship. It is not only a medical center of importance, but a city of interest and opportunity.

EASILY ACCESSIBLE

Ten trunk line steam railroads serve Dallas, with 100 passenger trains daily in and out of the $6,500,000 Union Terminal Station, 258 interurban trains leave the $1,000,000 electric interurban station daily. Dallas is 16 hours by rail from Kansas City, 18 hours from St. Louis, 27 hours from Chicago or Cincinnati, and 43 hours from New York.

For those who wish to use the automobile in attending the S. M. A. convention, Dallas is located on five transcontinental highways, Bankhead, Meridian, King of Trails, Dallas-Canadian-Denver, and the Dixie Overland. These highway organizations assure the tourist of well-kept roads. In Dallas County alone are a thousand miles of surfaced highways, and a tourist camp and centers of highway information are available also.

CLUBS, RESTAURANTS, THEATRICAL FACILITIES.

Dallas has a number of strong clubs, splendidly housed, such as the Dallas Athletic Club, University Club, City Club, a number of fine golf clubs, and all the leading national service organizations, such as Rotary, Lions, Kiwanis are represented here—all are most hospitable in the entertainment of visitors.

Restaurants, either connected with hotels or independent, are numerous and of a generally high standard. Some of the highest priced chefs in the nation are here. You can get meals with a Western flavor, Mexican dishes, Chinese dishes, or old-fashioned Southern cooking. All-the-year truck gardens and farms are producing in some part of Texas, and this coupled with proximity to packing houses, poultry farms and orchards, tends to keep food prices reasonable.

Dallas has 37 theaters, with a combined seating capacity of 28,000. These include summer and winter stock companies, many good road shows during the season, high-class vaudeville and motion picture houses, and the Little Theater which was twice awarded the Belasco prize. There are theaters costing as much as $2,000,000 and seating as many as 3,000 persons.

CLIMATIC CONDITIONS

Dallas' climate as a whole is pleasant and invigorating, without severe extremes, and November in Texas as a rule is crisp and clear, ideal for travel and for outdoor sports.

Through the medium of this JOURNAL, in later issues, data on the hospital and clinical facilities of the Convention City will be given, meanwhile, the medical profession of Dallas and of Texas, invites you to plan to attend the Southern Medical Convention this fall.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

SCARLETINAL ANTITOXIN (Unconcentrated)—MULFORD.—A scarlet fever streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338). It is prepared from the serum of horses treated with subcutaneous injections of toxic filtrate from cultures of scarlet fever streptococci and also with intravenous injections of the streptococci themselves. Each cc. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 cc. (prophylactic dose) and in packages of one vial containing 40 cc. (therapeutic dose). H. K. Mulford Company, Philadelphia.

SCARLET FEVER ANTITOXIN-LEDERLE (Unconcentrated).—A scarlet fever streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338). It is prepared by immunizing horses by the subcutaneous injection of the toxic filtrate obtained by growing the scarlet fever streptococcus in broth; also by injection of cultures of the scarlet fever streptococcus. Each cc. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 cc. and in packages of one cylinder containing 50 cc. with an intravenous injection outfit. Lederle Antitoxin Laboratories, New York.

INSULIN—STEARNS 80 UNITS, 5 cc.—Each cc. contains 80 units of insulin—Stearns (New and Nonofficial Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

INSULIN-STEARNS 80 UNITS, 10 cc.—Each cc. contains 80 units of insulin-Stearns (New and Nonofficial Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

TUNA FISH PROTEIN EXTRACT DIAGNOSTIC-P. D. & Co.—A protein extract diagnostic-P. D. & Co. (New and Nonofficial Remedies, 1925, p. 289). Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, July 4, 1925, p. 35).

LOEFLUND'S MALT EXTRACT.—A preparation essentially similar to extract of malt U. S. P. It is marketed as Loeflund's malt extract with calcium (containing calcium lactophosphate 0.5 per cent) and Loeflund's malt extract with cod liver oil (Norwegian cod liver oil 33 per cent). Britt, Loeffler & Weil, New York, distributor. (*Jour. A. M. A.*, July 11, 1925, p. 115).

NEOSALVARSAN DOSE XII.—Each tube contains neosalvarsan (New and Nonofficial Remedies, 1925, p. 50), 1.8 gm. H. A. Metz Laboratories, Inc., New York.

SCHICK TEST-LILLY.—Diphtheria Immunity Test (Schick Test), (New and Nonofficial Remedies, 1925, p. 50), is also marketed in packages of two vials, one containing diphtheria toxin sufficient for fifty tests and the other vial containing the proper amount of diluent. Eli Lilly & Co., Indianapolis. (*Jour. A. M. A.*, July 25, 1925, p. 269).

PROPAGANDA FOR REFORM

LISTERINE.—So far as the composition is concerned, the use of Listerine as a simple mouth wash is unobjectionable. Unfortunately the manufacturers are not content to recommend and advise it exclusively for the field in which it has a place. Listerine is exploited with an air of conservatism, even a statement of composition is given which, however, is essentially meaningless. While the claims as to antiseptic efficiency and the claim that it is a deodorant (it is not a deodorant, but merely covers one smell with another) may in general do little harm when Listerine is used as a "toilet preparation," the advertising that accompanies trade packages

contains recommendations for its use in serious conditions, the self-treatment of which is a danger to the individual and inimical to the public health. The potency for harm that these recommendations have is all the greater because the manufacturers affirm that they "do not advocate self-medication, even with Listerine." The trade package circular recommends the use of Listerine in "tonsilitis"; this may easily lead to its employment in undiagnosed cases of diphtheria, and dependence on it in such conditions may be the means of spreading this infective disease. The circular suggests its use in "bronchitis," which may be tuberculosis or pneumonia. It recommends its use in "leucorrhea"; this may lead to the self-treatment of a serious infection. The self-treatment of any such conditions is fraught with danger to the individual and to the community. (*Jour. A. M. A.*, July 4, 1925, p. 55).

Treatment of Snake-Bite.—The indications for the treatment of snake-bite are the same as those for any other kind of poisoning: namely, first to remove the poison, secondly, to remove its effects. Immediate interruption of absorption should be attempted by application of a bandage for a period. Removal of the poison from the wound after having enlarged it, by sucking, by washing, or by destruction by red heat or a caustic is the next thing to attempt. The third, most important remedy, is the injection of antivenom serum, which must be specific for the particular venom involved. (*Jour. A. M. A.*, July 4, 1925, p. 57).

The Parathyroid Hormone.—The significance of a hormone elaborated by the parathyroid structures for the metabolis of calcium, at least so far as the relation of the content of this element in the blood is concerned, seems to be well established. The promise of preparing an effective parathyroid product seems about to be fulfilled in various places. The publications of Hanson in 1923 show that he was actively engaged in the extraction of an active product. Since then success had attended the investigation of Fisher and Larson and particularly those of Collip. Both Collip and Fisher and Hanson warn against the possible dangers of unwarranted therapy with potent preparation, for symptoms of atonia depression, diarrhea and dyspnea are readily produced by large doses of a potent preparation. (*Jour. A. M. A.*, July 11, 1925, p. 118.)

The Quantitative Accuracy of Medical Tablets.—Attention has been called repeatedly to discrepancy between the actual composition and the claims made for various tablets and pills sold to the medical profession. Variations as high as 54 per cent above and 70 per cent below the label statement of composition has been found. Two associations of pharmaceutical manufacturers have appointed a joint committee which collaborates with the government authorities in an attempt to bring about improved conditions. During the past years, attention has been given by this group to the composition of hypodermic tablets. As a result of this study, plans for controlling the degree of accuracy of hypodermic tablets have been issued by the federal Bureau of Chemistry in which is given a maximal permissible variation, ranging from 7.5 to 9 per cent. The fact that the pharmaceutical industry collaborates with the governmental authorities in the establishment of standards is encouraging. (*Jour. A. M. A.*, July 11, 1925, p. 118.)

Rheumeez Not Accepted for N. N. R.—The Council on Pharmacy and Chemistry reports that "Rheumeez" (Casco Laboratories, Elizabeth, N. J.) is claimed to be magnesium cinochophen, the magnesium salt of 2-phenyl-quinolin-4-carboxylic acid. From the advertising issued for the product, one gets the impression that the production of the magnesium salt of cinchophen is a noteworthy achievement on the part of the Casco Laboratories and that the product is superior to cinchophen. However, this compound is the analogue of the well-known cinchophen-sodium. When a solution of Rheumeez is treated with dilute hydrochloric acid, cinchophen is precipitated; therefore the compound will be decomposed in the gastric fluid of the stomach and its administration will be equivalent to the administration of cinchophen accompanied by an insignificant amount of magnesium. The council found Rheumeez unacceptable because (1) it is an unessential modification of the established drug cinchophen; (2) it is marketed under a nondescriptive therapeutically suggestive name; and (3) it is advertised with unwarranted and misleading claims which will lead the public to attempt self-medication in conditions which require the diagnosis and supervision of physicians. (*Jour. A. M. A.*, July 11, 1925, p. 132.)

Prevention of Mosquito Bites.—Numerous preparations have been proposed to be applied to exposed parts of the body to prevent mosquitos from biting. Among these are oil of

pennyroyal, resorcin monoacetate euresol, various forms of petroleum, and powders and washes similar to the following: oil of eucalyptus 25 cc., talc 50 gm., starch 325 gm., oil of cinnamon 1 cc., oil of patchouli 1 cc., oil of santal 4 cc., alcohol to make 400 cc. (*Jour. A. M. A.*, July 11, 1925, p. 134.)

THE WILKENS-FIRST CANCER CURE.—During the last ten years literature has been sent out by an illiterate advertising cancer quack, one J. K. Wilkens of Muscatine, Iowa. Apparently it is an escarotic paste. Some years ago it was stated that this treatment had been endorsed by Dr. F. H. First and used in a hospital in Rock Island. Dr. First admitted that he was using the preparation. Dr. First was asked to disclose to the medical profession the composition of the preparation which he was using. He replied that, until such time as he could "report on a list of cured cases," he could "see no reason to make the treatment public." This was in 1917, but Dr. First does not appear to have reported the list of cured cases nor given the profession the formula. (*Jour. A. M. A.*, July 11, 1925, p. 135.)

LOWERING THE BLOOD PRESSURE WITH LIVER EXTRACT.—The effect of liver extract administration on blood pressure was studied in thirty-three cases. In these cases hypertension had persisted for varying periods. Physiological sodium chloride solution of extract of the liver was injected intravenously. Twenty-five patients experienced no disagreeable symptoms, most of them reported apparent relief. In eight cases there were reactions of varying degree, some of which resembled protein shock. There was an average fall in the systolic pressure of 62 mm., and an average fall in diastolic pressure of 28 mm. Investigations are under way to determine the constituent or constituents of liver responsible for the effect on blood pressure. The clinical value of liver extracts will depend, not only on the development of a stable and uniform extract, but also on the permanence of the fall in pressure and its relation to other pathologic changes existing in the body. (*Jour. A. M. A.*, July 18, 1925, p. 194.)

MIZAR.—Mr. Sorokowski, formerly of Chicago and now apparently operating from a suburb, Oak Park, sells, "especially to the foreign element," a product that he calls "Mizar" as "the most effective remedy for rheumatism." Mizar comes in the form of an ointment. Two cases of dermatitis venenata from its use have been reported. The A. M. A. Chemical Laboratory examined Mizar and reports that the preparation may be considered essentially an ointment, the chief active ingredient of which is an extract of capsicum. Presumably a product of this sort appeals to those purchasers of "patent medicines" who feel that they are not getting their money's worth unless the preparation has an appalling smell or taste, or produces some physiologic reaction that will make them sit up and take notice. (*Jour. A. M. A.*, July 18, 1925, p. 212.)

ADMINISTRATION OF HEXAMETHYLENAMIN.—In a solution containing hexamethylenamin 3 gm., acid sodium phosphate 9 gm. and distilled water 120 cc. a faint reaction for free formaldehyde is obtainable, though the reaction is much less intense than that obtained in a solution of the same amount of hexamethylenamin in 0.2 per cent hydrochloric acid. In the course of days when kept at ordinary room temperature and in diffused light the formaldehyde reaction in the solution increases. When recently prepared the acid sodium phosphate-hexamethylenamin mixture is not objectionable; however, in view of the comparative instability of the mixture it is advisable, either as Useful Drugs recommends, to administer acid sodium phosphate midway between the doses of hexamethylenamin or else to add hexamethylenamin to a solution of acid sodium phosphate just before administration. (*Jour. A. M. A.*, July 18, 1925, p. 214.)

SODIUM IODID IN ASTHMA.—The use of iodids as adjuvants in the treatment of asthma seems to be of such general acceptance that recent medical literature reveals few special studies of its effects in this condition. The intravenous administration of sodium iodid in this condition has been reported. However, a report on the intravenous administration of sodium iodid in the Mayo Clinic states that there is no advantage in using sodium iodid intravenously, except in a few cases where massive doses might cause iodism. The Council on Pharmacy and Chemistry does not endorse the routine administration intravenously of sodium iodid. The Council holds that intravenous medication generally is not as safe as oral administration, and further, that there is little if any justification for the intravenous administration of such agents as sodium iodid, because their systemic effects are promptly obtained from oral administration. (*Jour. A. M. A.*, July 25, 1925, p. 290.)